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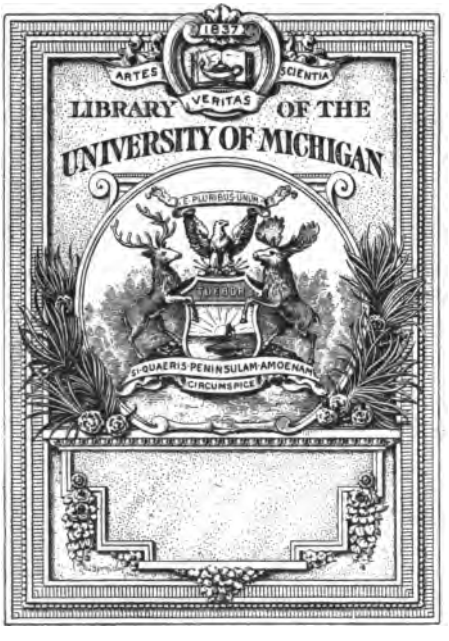

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Public Document No. 48

REPORT

OF THE

BOARD OF METROPOLITAN PARK COMMISSIONERS.

DECEMBER, 1909.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1910.

OFFICERS.

Commissioners.

WILLIAM B. DE LAS CASAS, *Chairman.*

EDWIN U. CURTIS.

DAVID N. SKILLINGS.

ELLERTON P. WHITNEY.

EVERETT C. BENTON.

Landscape Architects.

Advisory.

OLMSTED BROTHERS.

Engineer.

JOHN R. RABLIN.

Law and Claims.

GEORGE LYMAN ROGERS.

Secretary.

JOHN WOODBURY.

OFFICES, 14 Beacon Street, Boston, Mass.

The Commonwealth of Massachusetts.

REPORT.

The Metropolitan Park Commission presents herewith its seventeenth annual report.

The area of the reservations and parkways remains substantially as at the time of the last report. Acquirements of small areas have been made to provide for minor improvements in the alignment of the reservations and parkways, and to complete the holdings required for the Alewife Brook improvement, and for the Fresh Pond Parkway connection to Concord Avenue, Cambridge, authorized by chapters 529 of 1906, 529 of 1907 and 651 of 1908. A table of the present areas and other data relating to the reservations and parkways is contained in the Secretary's report.

The most important new work of construction and development during the year has been as follows. The portion of Charles River Drive along the river front of the United States Arsenal at Watertown, upon land transferred by the United States Government, has been completed; the dam in Mystic River at Cradock Bridge has been completed; surfacing of Mystic River Driveway from the dam to Medford Street, Arlington, has been well advanced, and the portion between Boston Avenue, Somerville, and Medford Street, Arlington, is ready to be opened; Winthrop Parkway, from the southerly end of Revere Beach to Endicott Avenue, has been subgraded.

The sanitary improvement of Alewife Brook has been begun and well advanced under the special act authorizing this work at the expense of the cities of Cambridge and

Somerville and the towns of Belmont and Arlington. For most of the distance from Mystic River to Spy Pond the improvement consists in straightening, deepening and widening the stream as an open channel between sloping banks, but for part of the distance from Broadway to Massachusetts Avenue it has been necessary to provide concrete retaining walls instead of slopes. When the work is completed the water level will be that of Mystic River above Cradock Dam, which is low enough to prevent overflow of the banks in flood time. A connection between Revere Beach Parkway and Plymouth Street, Everett, has been completed under a special appropriation for that purpose. Further subgrading has been done upon the portion of Lynn Fells Parkway remaining unfinished across the meadow lands on the northerly side of Ell Pond, which were provided by the city of Melrose. It is hoped that settlement of the meadow has now ceased, and that surfacing may be done in the coming year.

Improvements have been made at various points in the reservations and parkways. Slight extensions have been made in the woods roads, and many portions of the more formal roads and parkways have been repaired and treated with surfacings intended to preserve and prevent dust. In the portion of Middlesex Fells within the city of Medford the work of repairing roads has been greatly facilitated by permission from the water and sewer commissioners of that city to take gravel, free of charge, from the nearby gravel pit belonging to the city. In the same Reservation the new police station, opened in February, has been connected by police signal system with all parts of the reservations and parkways of that division. The new car line of the Boston Elevated Railway was opened in August, and active work upon the extension of the Boston & Northern Railway from Stoneham to a connection with the Elevated Railway has been prosecuted with such vigor that it will probably be opened to travel in the spring of 1910. It is already evident that these lines will be very popular, and will bring a greatly increased use of the Reservation.

At Revere Beach inadequate police accommodations have been improved by rearrangement and slight enlargement of

MIDDLESEX FELLS RESERVATION.—Police Station.

the police station; an incinerator for disposal of garbage and picnic refuse has been installed; and plans for alterations to provide increased sanitary accommodations at the bath-house have been prepared, and it is expected that the work will be completed before the next season.

At Nantasket a new kitchen, with fireproof walls and floors, modern apparatus and complete new plumbing and steam piping, has been built. These improvements, and the many repairs needed for a gradual renovation of the hotel, café and servants' dormitory, have to be paid for out of rentals derived from the hotel, and can be made only as rapidly as these funds will permit.

In the Blue Hills forestry work has been continued to the limited extent which maintenance funds have permitted. Pine seedlings to the number of 85,000 have been planted, making a total of 350,000 set out during the past few years. Preliminary report upon a forestry plan to be pursued with regard to the entire Reservation has been made by Professor Fisher of the Department of Forestry of Harvard University, and it is hoped that during the coming year this plan will be completed, and provide for a consistent method of work, which may be pursued from year to year as funds will permit, with a view to gradually bringing the forestry work of this great woods reservation to a self-sustaining basis. Water pipes from the Milton water main have been extended to headquarters to provide fire protection. The police signal system has been extended to Furnace Brook Parkway and Quincy Shore.

On Charles River a driveway through the woods overlooking the river has been subgraded from Weston Bridge to Norumbega Tower, a distance of 4,900 feet, and will be surfaced during the coming year if funds will permit. At the Speedway a show ring for horses has been partially built, and a circular or kite track one-half mile long is being constructed. These will be completed as funds permit. The material used for the subgrading is cinders mixed with road scrapings, and is that taken from the dike, which has not been needed since the construction of the dam at the foot of the Basin.

Repressive work against the gypsy moth and other insect pests has been generally successful. In Middlesex Fells another substantial reduction in the expense of this work will be possible for the coming year. Along Charles River above Watertown, and in the Blue Hills Division, however, progress of the work of suppression is less satisfactory, owing to peculiar difficulty in reaching many sections along the river in the neighborhood of outside infested portions, and in the Blue Hills of reaching scattered colonies in the depths of so large a reservation. At Lowell Memorial Park and Beaver Brook the Board regrets to note that a number of large trees have died, chiefly from old age and defects which had come before the reservations were acquired. Determined effort has been made to save the remaining notable trees, under the advice and work of experts. At Beaver Brook an attractive shelter and a convenient sanitary and detention building have been erected, and the immediate surroundings graded under the special appropriation for that purpose.

As a whole, the reservations and parkways have never been in as good condition as now, but this result has been achieved only by constant watchfulness and unremitting work, in which it is a pleasure to note that the employees of the Board generally have shown the faithfulness of deep personal interest. Public use of the reservations and parkways increases each year, and so new requirements and opportunities present themselves which can be satisfied only by increased expenditures. The Board strives in every way short of absolute repression of the increasing use to limit the increase of expenditures, sometimes by rules which limit the public, as, for example, the rule against the use of the roadways by automobiles with chains attached, yet in this last case the demand for repeal of the rule is so strong that the Board feels obliged to present the matter to the Legislature in connection with its estimates for maintenance, in order that the appropriating power may determine whether it will provide an increased expenditure of $14,000 to repair damage likely to be done if the rule is suspended during December, January and February of each year.

The loan funds available for new acquirements and con-

struction work are now exhausted, except as reserved for payment of land claims on account of lands taken in previous years, and for completion of construction work already begun, and a few incidental necessities. The Board fully appreciates that the large appropriations of previous years have brought an annual expense for interest, sinking fund and maintenance which adds largely to the taxes of every city and town in the District, and since 1903, when the last large appropriations were made, has carefully refrained from urging any considerable new land takings or construction work. The same policy will be adhered to except when special necessities seem to make it necessary either to repair damage which cannot be repaired out of the annual maintenance appropriations; or to finish work already begun which, owing to unforeseen circumstances, cannot be completed within the estimates and funds reserved; or when changes in development of neighboring properties make opportunities and necessities previously unknown, or likely to be lost if not immediately availed of. In pursuance of this plan it seems necessary in this report to make recommendations for special appropriations on account of the following matters: —

A violent storm on Dec. 26, 1909, accompanied by the highest tide since 1851, did serious damage to the seashore reservations. An amount of at least $55,000 will be required for repairing this damage, and the Commission will present the matter to the Legislature as an addition to its estimates for maintenance, submitted in November, 1909. If, however, it should be the opinion of the Legislature that this amount may not be provided as part of the maintenance appropriations, then it will be necessary to ask for an appropriation in addition to the loans, to cover the amount stated, which, with the detailed investigations now going on, may be somewhat increased. In this connection it is suggested that the Commonwealth adopt some method for protecting the headlands of Boston Harbor and Massachusetts Bay, outside the holdings of this Board, which are being washed away by heavy storms. The material from the unprotected headlands is thrown upon such reservations as Winthrop in considerable quantities, and has to be removed by the Board at a

large expense. This material often adds force to the waves, and materially increases the damage above what would be done under other conditions. The Commonwealth is thus doubly a loser.

The dredging of Mystic River, required to be done by this Board to make the channel conform to the plan recommended by the State Board of Health, has been only partially completed. Unexpected contingencies arising out of construction of the dam and in other directions have exhausted the small balance under the Park Act, and the dredging and some incidental work must remain uncompleted until funds are provided. It is estimated that the necessary work will require an appropriation of $15,000, and the Commission recommends this appropriation.

At the junction of Revere Beach and the Parkway toward Winthrop, the violent storm of Dec. 26, 1909, broke through and did considerable damage. A bulkhead must be built to protect this portion of the shore, and adequate protection of the roadways and the proposed establishment of a harbor line require that a small amount of land, in addition to that now held by the Commission, be acquired. The estimated cost of the new construction is $20,000 and of the land $20,000, a total of $40,000, and the Board recommends an appropriation of this amount.

In addition, it seems proper to suggest the advisability of providing a contingent fund, out of which such improvements as the one last suggested may be made, which shall be large enough for that purpose but not large enough to suggest consideration of any of the greater undertakings which may be urged upon the Board. With such a contingent fund it would be possible to make from time to time such slight additions and improvements as can be most economically provided for by immediate action.

During the past year the Board has continued to act with the Charles River Basin Commission as a Joint Board on the matter of boathouse locations on Charles River Basin, and has also acted with the Railroad Commissioners, the Board of Harbor and Land Commissioners and the Boston Transit Commission as a Joint Board to consider the report of

WINTHROP SHORE RESERVATION.—Damage from Storm, December, 1909.

the Metropolitan Improvements Commission, and other suggestions in regard to metropolitan improvements, and report such as are deemed advisable to provide for by legislative action.

The usual annual reports, with financial and other statistics, from the Secretary and Engineer accompany this report.

All of which is respectfully submitted,

WILLIAM B. DE LAS CASAS.
EDWIN U. CURTIS.
DAVID N. SKILLINGS.
ELLERTON P. WHITNEY.
EVERETT C. BENTON.

DECEMBER, 1909.

REPORT OF THE SECRETARY.

Hon. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission, 14 Beacon Street, Boston.*

SIR: — I herewith present my report for the year ending Dec. 1, 1909. It is subdivided as follows: 1. Acquirement of lands; 2. Administration; 3 Miscellaneous; 4. Finance.

1. ACQUIREMENT OF LANDS.

The only land takings made this year have been to complete the acquirements necessary for Alewife Brook Parkway and for the work of sanitation ordered by chapter 529 of the Acts of the Legislature of 1906, as amended by chapter 529 of the Acts of 1907. These include a strip of land of varying width extending from Concord Avenue at Fresh Pond Park in Cambridge to the location of the Central Massachusetts Division of the Boston & Maine Railroad; a strip along Alewife Brook in Somerville, from Broadway to the Cambridge line, through land of the West End Street Railway Company; and a corresponding strip on the Arlington side of the brook along the Saint Paul's Cemetery. A small triangle of land at the junction of Middlesex Fells Parkway with Fellsmere Park in Malden was purchased of the abutting owner to improve the connection between the Parkway and the Park. A small parcel of land at the junction of Brook Road and Blue Hills Parkway in Milton has been conveyed to the Commission by the town, which will join with the Commission next spring in the expense of improving the entrance of Brook Road into the Parkway. In the Charles River Reservation a conveyance has been made to the city of Newton to provide for the widening of Charles Street at Riverside, and an exchange of land has been made with an adjoining owner, improving the boundary on Woerd Avenue in Waltham. At Revere and Winthrop some strips

between the taking and construction lines have been deeded to the abutters. The annexed table gives the areas of reservations and parkways and length of parkways.

2. Administration.

The general offices and Engineering Department continue to be located at 14 Beacon Street, Boston, and no change from previous years has been made in the methods of administration.

Engineering Department.

The most important work of construction this year has been the continuance of the work of improvement on Mystic River in Medford, Somerville and Arlington, and the beginning of the work of sanitation along Alewife Brook in Somerville, Cambridge, Arlington and Belmont. The dam in the Mystic River at Cradock Bridge in Medford is completed and in operation. The river at this point is 110 feet in width. The dam includes a boat-lock 60 feet in length, canoe rollway, weirs which ordinarily will automatically regulate the height of the water above the dam, and sluice gates operated by electric motors, for use when needed. The dam is intended to completely exclude tide water, and maintain the level of the river and its tributaries above the dam at a grade about three feet below mean high water. The roadway in extension of Mystic Valley Parkway is practically completed from Medford Street in Arlington down to Boston Avenue in Somerville, and will be opened to travel in a few weeks. This furnishes a connection with Powder House Boulevard in Somerville. The remaining portion of the driveway along the river from Boston Avenue to Cradock Bridge in Medford should be completed by June of next year. A considerable amount of dredging has been done in the river, but more is required to be done to comply with the requirements of the report of the State Board of Health.

The work of purification of the Alewife Brook territory was begun last June. The old brook with its tortuous channel, obstructed in many places with débris or partly filled with accretion of various kinds, is being replaced by a new channel, straight, sufficiently deep, and with banks

graded to a proper slope. It is expected that the maintenance of the lower water level in Mystic River and the new channel of the brook will result in the better drainage of the low land along the course of the brook and the general improvement of sanitary conditions of the neighborhood. The dredging of the channel is completed from Mystic River to Broadway in Somerville, and from Massachusetts Avenue in Cambridge has been carried a considerable distance beyond the Arlington Branch of the Boston & Maine Railroad. Between Broadway in Somerville and Massachusetts Avenue in Cambridge concrete retaining walls are in course of construction on both sides of the brook, and should be completed early in the coming year. Other work incidental to the main work, such as underpinning of existing bridges and lowering of Metropolitan sewer, is being carried on in several places.

A section of Winthrop Parkway in Revere, from Charles Eliot Circle to Leverett Avenue, has been built to subgrade, and the portion formerly part of Ocean Avenue surfaced and opened to travel on November 11.

The portion of Charles River Road which passes through the grounds of the United States Arsenal at Watertown, from Arsenal to North Beacon streets, has been completed, and was opened to travel on October 21.

The portion of Lynn Fells Parkway between Tremont and Melrose streets in Melrose is built across a bog, and surfacing has been postponed to allow settlement. Considerable additional filling has been deposited on the line of the road, and apparently the road has reached the limit of settlement and surfacing can be done the coming year.

An extension to Plymouth Street in Everett has been built, providing an entrance for that street into Revere Beach Parkway.

A concrete apron and toe wall have been constructed at base of the Lynn Shore sea wall, from Red Rock northerly about 800 feet, to protect it from undermining by the sea, which has lowered this portion of the beach considerably since the wall was built.

Other important work of construction done under the Engineer's direction has been the resurfacing of roads in

ALEWIFE BROOK PARKWAY. — Walls for New Channel.

ALEWIFE BROOK PARKWAY. — Digging New Channel.

the Middlesex Fells Reservation and Parkway and Mystic Valley Parkway, laying of underdrain in portion of Revere Beach Parkway, extension of sewer, laying of drains and concrete floors in connection with the buildings on the Nantasket Beach Reservation, extension to culvert at Quincy Shore Reservation, building of incinerator and laying of additional granolithic walks at Revere Beach Reservation, and supervision of general repairs and tar and oil treatment of many of the park roads.

This department also has inspected the park bridges from time to time, has also provided inspection incident to the numerous permits issued to city and town departments and individuals for doing work within park lands and roads, and has furnished all plans and surveys required for the work of the Commission.

The details of this work appear in the report of the Engineer, hereto annexed.

Law and Claims Department.

This department has had in charge the preparation of contracts, search of titles, drawing of deeds, releases and all other documents required by the work of the Board, and the making of appraisals, preparation of awards and negotiations for settlement of claims. Outstanding claims for lands taken for parks and parkways number 80, and it is estimated will cost $70,193.34.

Superintendence.

BLUE HILLS DIVISION: B. J. COSTELLO, *Superintendent.*

In Blue Hills Reservation a new entrance to the Ponkapoag Trail from Hillside Street has been built, old roads repaired and a number of new paths and woods roads opened. The grounds around the new stable on Randolph Avenue were graded. The small bath-house used by boys at Houghton's Pond was burned, but the damage was slight, as the building was old and of little consequence. The water main which the town of Milton is laying in Hillside Street will have been carried to a point near the headquarters buildings by the

first of the year, and the line should be extended as far as Houghton's Pond in the spring. This will furnish some fire protection to the valuable buildings of the Reservation, which, in accordance with the law of the State, are not insured. Some forestry work has been done and 85,000 pine seedlings were set out in various places. The work in suppression of the gypsy moth has been carried on in the same lines as in previous years, and, as the moth is found in increasing numbers in the region around the Reservation, will have to be carried on with greater vigilance in the coming year. So far the moth has been found only in isolated and small colonies in the Reservation, and their spread has been prevented by thorough scouting of the woods and thorough work in cleaning up wherever a colony has been found. Band concerts were again given on Sunday afternoons during the summer and fall at the foot of Great Blue Hill; they were well attended and apparently gave much pleasure.

In Stony Brook Reservation, Turtle Pond and Bold Knob roads, which were used considerably by automobiles, were treated with oil. The playground at the southern end of the Reservation has been enlarged by grading the adjoining land with material furnished by the town of Hyde Park. Some forestry work has been done and 15,000 pine seedlings were planted. The moth work has been of the same character as that carried on in the Blue Hills, and was equally successful.

In Quincy Shore Reservation the driveway has been treated from time to time with calcium chloride, which has been successful in keeping down the dust. A conduit for wires of the police signal system has been laid in the sidewalk. Some repairs have been made at the culvert near the National Sailors' Home. The city of Quincy has accepted and entered two new streets into the driveway. Moths were found in the wooded land at the end of the Reservation, and the premises were treated in the usual manner.

Neponset River Reservation has had the usual care of the river banks, and has required considerable moth work.

Blue Hills Parkway in Milton has had both roadways treated with asphaltoiline. The traffic road is worn with the

heavy travel it receives, and should be resurfaced. The trees of the Parkway have been pruned and protected against the moth. It has been found necessary to remove one of the old elms, which by age had become in danger of falling.

In Neponset River Parkway, from Blue Hill Avenue to Pauls Bridge, the roadway was treated with asphaltic oil. The sidewalk has been resurfaced.

Furnace Brook Parkway in Quincy was treated with calcium chloride. A new conduit was laid to carry the police signal system wires, and poles are being set to make connection with the conduit at Quincy Shore. The wall of the brook at the Quincy House has been partially relaid.

MIDDLESEX FELLS DIVISION: A. N. HABBERLEY, *Superintendent.*

The campaign against the gypsy and brown-tail moth in the Middlesex Fells has been continued vigorously and with good results. Relying upon the experience of the previous year, spraying was extended to larger areas, and the work of creosoting consequently reduced. Brown-tail moth nests were cut from the trees where practicable. The condition of the woods is better than it has been at any time since the Commission has had charge of this work, but it will have to be continued from year to year so long as territory about the Fells is so thickly infested, and probably until some parasite or disease shall attack the moths. With improved conditions, however, and the benefit of previous experience, the expense of these protective measures has been materially reduced.

The Commission was given a special appropriation this year for reconstruction and repairs of roads in the Fells, and considerable has been accomplished. Forest Street, in the Medford section, was resurfaced with stone and gravel from Elm Street to Half Mile Road, as were two sections of Main Street in Stoneham, near Porter's Cove. A section of Main Street in Stoneham, near Dark Hollow Pond, was resurfaced with stone and tar. Elm Street in Medford was resurfaced with gravel its entire length. South Street in Stoneham, from Pond Street to New South Street, and New South Street were resurfaced with gravel. Portions of Pond

Street were repaired. Emerson Street Border Road, which makes connection between Lynn Fells Parkway and Wyoming Avenue in the Fells, was widened and opened to automobile travel. All of these roads were treated with some form of tar and oil treatment, or with calcium chloride. A new entrance to Hemlock Pool Road from Woodland Road was built from a point opposite Half Mile Road.

The collection of animals at the headquarters buildings on Pond Street has been slightly added to, and the cages and enclosures somewhat improved. The flock of sheep is in good condition, and consists of 26 sheep and rams. The nursery for shrubs is in good condition, and has furnished considerable stock for this and other divisions. Sufficient hay, straw, carrots, cabbages, turnips and green vegetables have been raised to supply the live stock, including the animal collection, for the coming year. The new police station on Forest Street, Medford, was occupied on February 1, and has greatly simplified the problem of administration. A police signal system similar to those in the Revere and Blue Hills Divisions has been installed in the Fells Division, and the board located in the new police station. Additional lighting has been provided on the main roads. These improvements came none too soon to accommodate the increased public use which followed the opening, on August 15, of the electric line of the Boston Elevated Street Railway Company, which terminates in the heart of the Reservation at the foot of Spot Pond. This line has already brought thousands of new visitors, and it is evident that larger numbers are to be expected the coming year. A small building for sale of refreshments was erected near the terminus of the railroad. Temporary sanitary buildings were set up, several new paths built, and tables and seats placed in convenient locations for picnickers. The crowds were orderly, and the only difficulty so far apparent is the crowding on to the roadways, interfering with travel. It is apparent that additional paths in the neighborhood of the railroad terminus are desirable.

Considerable sections of Middlesex Fells Parkway have been resurfaced with tar and asphalt or with gravel and oil. In several places edgestone has been reset, to do away with

sharp angles on turns. A portion of Fellsway West was kept in condition for speeding on the snow. Fellsmere Pond was cleared for skating, and band concerts were given at Fellsmere in Malden, Cradock Field in Edgeworth, and Broadway Park in Somerville. In addition to pruning, preparing for planting and moth work, it was necessary to treat a portion of the Parkway trees with scalecide, for the oyster shell scale. There were 161 openings of the draw in Wellington Bridge.

Sections of Mystic Valley Parkway in Winchester and Medford were resurfaced with crushed stone and gravel and treated with tar and oil asphalt. Since its completion, the dam and lock at Cradock Bridge has been handled by this division. The children's bath-houses at Mystic Lake were used by 13,826 boys and 4,139 girls, and no serious accident occurred. Band concerts were given at Manchester Field on Saturday afternoons.

The finished portion of Lynn Fells Parkway in Melrose was treated with calcium chloride.

REVERE BEACH DIVISION: H. W. WEST, *Superintendent.*

The greater part of the driveway of Revere Beach Reservation from Charles Eliot Circle to Revere Street was treated with tarvia, and the remainder repaired. From Revere Street to the Point of Pines stone-dust and oil were applied. Changes were made in the alignment of the road at the northern end, and planting done at the circles at both ends. Granolithic walks were laid on the seaside promenade in front of the shelters at Shirley Avenue and in front of the Bath-house. An incinerator for disposing of the large amount of refuse gathered each day in summer upon this Reservation has been built at the Bath-house, and has not only worked successfully but has lessened the cost of handling this material. The plumbing of the sanitaries at the Bath-house was renewed, and conditions improved. An addition was built on to the police station, giving several more rooms and much-needed accommodations for the work of administration. Band concerts were given on Tuesday and Thursday afternoons, Saturday and Sunday afternoons and evenings,

and on the afternoons and evenings of holidays, during the summer months.

The Revere Beach Bath-house was opened on June 12 and closed on September 12, a period of 93 days. The record of bathers is: male bathers, 96,341; female bathers, 58,585; total, 154,926. The largest attendance was 7,837, on Sunday, August 8. This record is better than last year, but below the records of some previous years. Receipts for the season were $33,784.40, and expenses for the year $31,270.36. Several rescues were made by the life guards, and 110 accident cases were treated in the emergency room, but no fatal accident occurred.

Lynnway, which extends from the Point of Pines across the Saugus River Bridge to the State highway in Lynn, was resurfaced with tarvia. There were 342 openings of the draw of the bridge.

At Winthrop Shore the iron fence on the wall was repaired and painted. The bridge over the Boston, Revere Beach & Lynn Railroad was repaired. Settees were placed on the bastions and sea promenade. Some repairs were made to the wall at the western end of the beach.

The driveway of Nahant Beach Parkway, in front of the Bath-house, was treated with calcium chloride. Additional seats were placed upon the beach, and new canvas tops placed on the shelters. Band concerts were given on Friday afternoons and evenings at the band stand in front of the Bath-house, which were largely attended. The record at the Nahant Beach Bath-house, which opened June 26 and closed September 6, was: male bathers, 13,992; female bathers, 13,583; total, 27,575. On Sunday, August 8, there were 2,290 bathers, the largest day. The receipts for the season were $5,392.15, and the expenses for the year $5,478.40.

At Lynn Shore the driveway was treated with stone-dust and calcium chloride. The iron fence was repaired and repainted. At the foot of King's Beach Terrace a concrete apron and toe wall was built at the base of the sea wall, extending from Red Rock about 800 feet northerly.

Revere Beach Parkway was resurfaced or repaired for substantially its entire length, different treatments of tar, oil and

tarvia being used in various sections. The edgestone was changed at several intersections of streets to facilitate traffic and improve conditions as to safety. An entrance for Plymouth Street in Everett into the Parkway was built. There were 461 openings of the draw in Malden River Bridge.

CHARLES RIVER DIVISION: J. L. GILMAN, *Superintendent.*

In the Riverside Section, extending from Newton Upper Falls to the dam at Moody Street in Waltham, much attention has been required to protect the trees and shrubs of the reservation from gypsy and brown-tail moths and the elm-leaf beetle. This is largely due to the proximity of tree growth on adjacent private land, which has not been properly cared for. In addition to creosoting and other usual methods, spraying has been carried on extensively, with excellent results. Considerable forestry work has been done along the banks, dead and dangerous trees removed, and in some places underbrush removed. Additional life-saving apparatus has been installed at different points. Rustic bridges and floats have been repaired, and some additional fencing built. A road along the Weston Shore, from Weston Bridge to Norumbega Tower, has been started, and will be continued as funds permit. The removal of rubbish which accumulates on the banks and in the river requires considerable attention. The use of the upper river by canoeists and motor-boats continues to increase. There has been a large number of accidents from the capsizing of canoes, but fortunately no fatality has occurred. The officers have rescued 30 persons from such accidents, and many others have been brought or have come to headquarters for assistance. During the skating season several persons broke through the ice, but no life was lost. Band concerts were given at Riverside and Fox Island during the summer, and one at Waltham on Regatta Day.

In the Speedway Section, which extends from the dam at Moody Street to Cottage Farms, work in repression of the gypsy and brown-tail moths and elm-leaf beetle has been the same as on the upper river. Charles River Road in Watertown was resurfaced with gravel and treated with oil. The new section of road through the grounds of the United States

Arsenal was opened to travel on October 21. Soldiers' Field Road was resurfaced with gravel and treated with calcium chloride. A small amount of grading was done on the level plot at Faneuil, which the children of the neighborhood use as a playground. Additional life-saving apparatus has been installed along the river and at the bridges. The closing of Charles River Dam last year makes all the river below Watertown Dam a part of the Basin. To accommodate the boating which has already begun to make increased use of the river, floats were placed at several points to facilitate landing. A large number of motor-boats have been moored during the open season in a bay just above the Arsenal. During last winter this portion of the river was used considerably for skating, and frequently when the conditions were unsafe. This continued in spite of warning signs and caution from the patrol which was maintained along the banks. Several accidents occurred from breaking through the ice, but fortunately no one was drowned. The Speedway itself has been partly resurfaced and has been largely used. A show ring was constructed on the marsh at the half-mile wire. During the fall, winter and spring months races were held under the auspices of the Metropolitan Driving Club, and on May 20 and October 14 horse shows were held in the ring. Plans have been made and work begun on a half-mile circular track around the show ring. There were twenty-five days of sleighing last winter at the Speedway. The small pleasure ground for children at the Market Street end of the Speedway was kept open and much used by the children during the summer season. Band concerts were given during the summer on Charles River Road in Watertown and at the Speedway. Concerts were also given on the days of the horse shows. A considerable quantity of filling from the Cambridge Subway is being deposited in the section of the Reservation between North Harvard and Cambridge streets, in Brighton, on the line of the proposed boundary road. Fresh Pond Parkway in Cambridge has been resurfaced with stone-dust and treated with calcium chloride. In Lowell Memorial Park some planting has been done. Many of the older trees are beginning to die off, and additional planting will be required. Consider-

CHARLES RIVER RESERVATION. — Arsenal Road.

able work has been necessary to protect the tree growth of this Parkway against a variety of insect pests. The lands taken for Alewife Brook Parkway are included in this division, but as no park development has yet begun, the only work has been the removal of old buildings and such moth work as was practicable with present conditions.

BEAVER BROOK DIVISION: ROBERT ELDER, *Superintendent.*

The important tree growth of this Reservation has been protected against insect pests. Spraying was added to the methods previously adopted, with good results. The usual amount of forestry work has been done, and every effort is being made to preserve and continue the life of the remarkable grove of oaks in the lower part of the Reservation. Sanitary and shelter buildings have been erected this year near the band stand. The number of visitors to this Reservation has been larger than ever. Band concerts were given there on Saturday afternoons during the summer.

NANTASKET BEACH DIVISION: MOODY LEIGHTON, *Superintendent.*

Nantasket Avenue, where it passes along the Reservation, has been treated with calcium chloride. The buildings have had general repairs, and a new kitchen has been built for the hotel, with granolithic floor, and new and modern equipment has been installed. Additional drains and sewer pipe were laid, and some alterations made in the old buildings, rendering them more convenient and sanitary. Band concerts were provided on Tuesday afternoons, Thursday, Saturday and Sunday afternoons and evenings and holiday afternoons and evenings during the summer. The Nantasket Bath-house was opened on June 1 and closed on September 6. The record was: male bathers, 20,300; female bathers, 16,374; total, 36,674. The largest day was on August 8, when 2,120 persons used the Bath-house. This year shows the largest number of bathers which this Bath-house has ever accommodated. The receipts for the season were $8,025.55, and the expenses for the year $8,796.63.

3. Miscellaneous.

In June of this year the Boston & Northern Street Railway Company began construction on the location in the Middlesex Fells granted to it by this Board on Oct. 7, 1908. The work included the building of two bridges and a trestle of concrete and steel construction, all of which are completed, and a considerable amount of grading and ledge work, which is still in progress. It had been hoped to have the work completed in the year 1909, but on account of the difficulties met with in construction the Company requested and were granted an extension of time for completion to March 1, 1910.

The Union Boat Club have built a boathouse on the Charles River Basin, in accordance with the terms of location granted to the Club on Nov. 4, 1908, by the Joint Board of the Charles River Basin and Metropolitan Park Commissions acting under the provision of chapter 404 of the Acts of the Legislature for the year 1907. Other petitions for locations are still pending before the Joint Board.

By chapter 113 of the Resolves of the Legislature of the year 1909 the report of the Metropolitan Improvements Commission was referred to a Joint Board, consisting of the members of the Boards of Railroad Commissioners, Harbor and Land Commissioners, the Boston Transit Commission and the Metropolitan Park Commission. The members of the Park Commission have taken part in the many meetings and public hearings of this Joint Board and the preparation of its preliminary report to the next General Court.

By request of the Massachusetts Highway Commission the Park Commission took a census of traffic at several points in the Metropolitan Park System at two different periods, the first from August 22 to August 28, inclusive, and the second from October 10 to October 16, inclusive. The following summary of the result seems of sufficient interest to report: —

TRAFFIC RECORD, AUG. 22 TO AUG. 28, 1909, 7 A.M. TO 9 P.M.

	Mattapan Bridge.	Wellington Bridge.	Malden River Bridge.	Saugus River Bridge.	Lynn Shore Drive, Corner Prescott Place.	Totals.
Single light, ...	1,878	1,612	772	844	1,710	6,816
Single heavy, ...	1,435	1,167	–	–	–	2,602
Double light, ...	113	91	23	18	239	484
Double heavy, ...	816	822	–	–	–	1,638
Auto runabout, ...	1,166	1,715	2,037	1,500	1,487	7,905
Auto touring, ...	3,601	5,605	5,284	6,740	8,489	29,719
Auto truck, ...	–	48	–	–	–	48
Totals, ...	9,009	11,060	8,116	9,102	11,925	49,212

TRAFFIC RECORD, OCT. 10 TO OCT. 16, 1909, 7 A.M. TO 9 P.M.

Single light, ...	1,909	1,091	422	482	1,052	4,956
Single heavy, ...	1,610	1,148	–	–	–	2,758
Double light, ...	110	146	25	43	81	405
Double heavy, ...	925	625	–	–	–	1,550
Auto runabout, ...	1,132	1,142	1,170	787	1,206	5,437
Auto touring, ...	3,738	4,303	3,075	3,698	3,146	17,960
Auto truck, ...	–	36	–	–	–	36
Totals, ...	9,424	8,491	4,692	5,010	5,485	33,102

On Jan. 10, 1909, William Mateer, a Metropolitan Park police officer, in attempting to save from drowning William Meehan, who had broken through the ice on Ponkapoag Pond, was drowned. His courage and devotion to duty have been made a matter of record in the records of the Commission. The matter was brought also to the attention of the Legislature last winter, and resulted in the passage of chapter 87 of the Resolves, providing an annuity for the benefit of the officer's widow and child. Subsequently the Legislature enacted chapter 453 of the Acts of 1909, providing, under certain conditions, for the pensioning of Metropolitan Park police officers, and for payment of annuities to the widows and children of officers dying from injuries received while in the discharge of duty.

4. Finances.

The following tables show in brief form the expenditures under the various park loans for the year ending Dec. 1, 1909: —

Metropolitan Parks Loan Fund.

Blue Hills Reservation: —		
Land,	$57 15	
Miscellaneous,	25 52	
		$82 67
Middlesex Fells Reservation: —		
Miscellaneous,	$41 85	
		41 85
Revere Beach Reservation: —		
Miscellaneous,	$123 07	
		123 07
Beaver Brook Reservation: —		
Miscellaneous,	$0 95	
		95
Charles River Reservation: —		
Miscellaneous,	$18,108 89	
		18,108 89
Neponset River Reservation: —		
Miscellaneous,	$2 50	
		2 50
Mystic River Reservation: —		
Miscellaneous,	$90,216 73	
		90,216 73
Lynn Shore Reservation: —		
Land,	$175 00	
Miscellaneous,	287 70	
		462 70
Quincy Shore Reservation: —		
Land,	$10 00	
Miscellaneous,	62 15	
		72 15
Winthrop Shore Reservation: —		
Miscellaneous,	$2,736 06	
		2,736 06
Alewife Brook Purification: —		
Miscellaneous,	$33,178 58	
		33,178 58
General expense,		1,085 46
		$146,111 61

METROPOLITAN PARKS LOAN FUND, SERIES II.

Blue Hills Parkway: —		
Miscellaneous,	$36 00	
		$36 00
Middlesex Fells Parkway: —		
Land,	$625 24	
Miscellaneous,	23,844 44	
		24,469 68
Mystic Valley Parkway: —		
Miscellaneous,	$30,964 46	
		30,964 46
Revere Beach Parkway: —		
Miscellaneous,	$78 50	
		78 50
Neponset River Parkway: —		
Miscellaneous,	$6 40	
		6 40
Fresh Pond Parkway: —		
Miscellaneous,	$0 40	
		40
Furnace Brook Parkway: —		
Land,	$2,500 00	
Miscellaneous,	33 62	
		2,533 62
Nahant Beach Parkway: —		
Miscellaneous,	$3 40	
		3 40
Lynn Fells Parkway: —		
Miscellaneous,	$3,502 37	
		3,502 37
Winthrop Parkway: —		
Land,	$5,381 42	
Miscellaneous,	24,555 69	
		29,937 11
Alewife Brook Parkway: —		
Land,	$60,371 12	
Miscellaneous,	2,118 31	
		62,489 43
Charles River Speedway: —		
Miscellaneous,	$105 14	
		105 14

Blue Hills Roads: —		
Miscellaneous,	$45 80	
		$45 80
Middlesex Fells Roads: —		
Miscellaneous,	$68 81	
		68 81
General expense,		1,082 65
		$155,323 77

The following tables show the total amount expended in each loan, the cost of each reservation and parkway to Dec. 1, 1909, and the amount charged by the Auditor's department to meet the sinking fund and interest requirements previous to Jan. 1, 1900: —

METROPOLITAN PARKS LOAN FUND.

Blue Hills Reservation: —		
Land,	$363,126 24	
Miscellaneous,	287,140 92	
		$650,267 16
Middlesex Fells Reservation: —		
Land,	$690,782 43	
Miscellaneous,	287,372 73	
		978,155 16
Revere Beach Reservation: —		
Land,	$1,162,947 67	
Miscellaneous,	799,488 18	
		1,962,435 85
Stony Brook Reservation: —		
Land,	$281,243 87	
Miscellaneous,	75,811 92	
		357,055 79
Beaver Brook Reservation: —		
Land,	$29,819 29	
Miscellaneous,	23,937 71	
		53,757 00
Hemlock Gorge Reservation: —		
Land,	$53,254 00	
Miscellaneous,	15,543 94	
		68,797 94
Charles River Reservation: —		
Land,	$1,476,947 55	
Miscellaneous,	302,738 17	
		1,779,685 72

Neponset River Reservation: —		
Land,	$224,783 04	
Miscellaneous,	46,371 97	
		$271,155 01
Mystic River Reservation: —		
Land,	$242,533 21	
Miscellaneous,	342,481 62	
		585,014 83
Lynn Shore Reservation: —		
Land,	$361,199 29	
Miscellaneous,	243,567 81	
		604,767 10
Quincy Shore Reservation: —		
Land,	$73,726 26	
Miscellaneous,	198,133 49	
		271,859 75
Winthrop Shore Reservation: —		
Land,	$51,067 32	
Miscellaneous,	168,996 98	
		220,064 30
Hart's Hill Reservation: —		
Land,	$10,000 00	
Miscellaneous,	202 35	
		10,202 35
King's Beach Reservation: —		
Land,	$24,297 21	
Miscellaneous,	1,551 63	
		25,848 84
West Roxbury Parkway: —		
Land,	$244,976 01	
Miscellaneous,	8,313 67	
		253,289 68
Wellington Bridge: —		
Miscellaneous,	$185,317 42	
		185,317 42
Nahant Beach Bath-house: —		
Miscellaneous,	$67,794 58	
		67,794 58
Boylston Street Bridge: —		
Miscellaneous,	$45,838 57	
		45,838 57
Alewife Brook Purification: —		
Miscellaneous,	$34,567 02	
		34,567 02
General expense,		162,045 10
		$8,587,919 17

Sinking fund requirements to 1896,	$18,980 18	
Care and maintenance to July 1, 1896,	85,813 46	
Care and maintenance, July 1, 1896, to Jan. 1, 1897,	19,604 06	
Sinking fund assessment for 1897,	63,630 70	
Sinking fund assessment for 1898,	9,755 55	
Sinking fund assessment for 1899,	64,224 00	
Interest,	28,318 61	
		$290,326 56
Total charged to Dec. 1, 1909,		$8,878,245 73

METROPOLITAN PARKS LOAN FUND, SERIES II.

Blue Hills Parkway: —		
Land,	$133,492 02	
Miscellaneous,	269,513 37	
		$403,005 39
Middlesex Fells Parkway: —		
Land,	$253,819 29	
Miscellaneous,	576,628 44	
		830,447 73
Mystic Valley Parkway: —		
Land,	$203,990 91	
Miscellaneous,	305,136 56	
		509,127 47
Revere Beach Parkway: —		
Land,	$537,445 51	
Miscellaneous,	858,906 16	
		1,396,351 67
Neponset River Parkway: —		
Land,	$83,941 75	
Miscellaneous,	36,100 54	
		120,042 29
Fresh Pond Parkway: —		
Land,	$44,086 25	
Miscellaneous,	29,823 24	
		73,909 49
Furnace Brook Parkway: —		
Land,	$166,397 77	
Miscellaneous,	140,090 51	
		306,488 28
Nahant Beach Parkway: —		
Land,	$80,940 78	
Miscellaneous,	75,014 13	
		155,954 91

Lynn Fells Parkway: —		
Land,	$37,768 46	
Miscellaneous,	111,513 22	
		$149,281 68
Winthrop Parkway: —		
Land,	$28,289 34	
Miscellaneous,	27,568 87	
		55,858 21
Alewife Brook Parkway: —		
Land,	$86,338 91	
Miscellaneous,	8,570 21	
		94,909 12
Charles River Speedway: —		
Miscellaneous,	$521,348 66	
		521,348 66
Blue Hills Roads: —		
Miscellaneous,	$8,742 06	
		8,742 06
Middlesex Fells Roads: —		
Miscellaneous,	$57,495 50	
		57,495 50
Stony Brook Roads: —		
Miscellaneous,	$37,183 45	
		37,183 45
Lynnway: —		
Land,	$20,500 00	
Miscellaneous,	124,366 10	
		144,866 10
Spy Pond Parkway: —		
Miscellaneous,	$89 04	
		89 04
General expense,		106,220 78
		$4,971,321 83
Sinking fund requirement for 1896,	$3,650 03	
Sinking fund requirement for 1897,	14,057 10	
Sinking fund requirement for 1898,	3,765 08	
Sinking fund requirement for 1899,	15,396 00	
One-half interest,	22,327 68	
		59,195 89
Total charged to Dec. 1, 1909,		$5,030,517 72

The appropriations heretofore made are as follows: —

METROPOLITAN PARKS LOAN FUND.

Original appropriation, chapter 407, Acts of 1893,	$1,000,000 00
First Revere Beach Act, chapter 483, Acts of 1894,	500,000 00
Charles River Act, chapter 509, Acts of 1894,	300,000 00
Second Revere Beach Act, chapter 305, Acts of 1895,	500,000 00
General appropriation, chapter 466, Acts of 1896,	1,000,000 00
General appropriation, chapter 464, Acts of 1897,	500,000 00
General appropriation, chapter 530, Acts of 1898,	1,000,000 00
Revere Beach Bath-house Act, chapter 142, Acts of 1899,	125,000 00
General appropriation, chapter 396, Acts of 1899,	300,000 00
Charles River Improvement Act, chapter 465, Acts of 1900,	50,000 00
Fuller's Wharf Act, chapter 467, Acts of 1900,	30,000 00
General appropriation, chapter 445, Acts of 1901,	450,000 00
Mystic River Bridge Act, chapter 492, Acts of 1901,	200,000 00
General appropriation, chapter 290, Acts of 1903,	125,000 00
Newton Upper Falls Bridge Act, chapter 391, Acts of 1903,	40,000 00
Continuing appropriation, chapter 429, Acts of 1903, for 1903,	300,000 00
For 1904,	300,000 00
For 1905,	300,000 00
For 1906,	300,000 00
For 1907,	300,000 00
Nahant Beach Bath-house Act, chapter 326, Acts of 1904,	70,000 00
Reimbursing loan for moth expense, chapter 486, Acts of 1906,	50,000 00
Purification of Mystic River, Alewife Brook and adjacent water courses, ponds and drainage areas, chapter 529, Acts of 1906,	100,000 00
Additional appropriation for purification of Mystic River, etc., chapter 529, Acts of 1907,	25,000 00
Mystic River and Winthrop Shore Act, chapter 652, Acts of 1908,	70,000 00
	$7,935,000 00
To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1897,	900,000 00
Total amount of loans,	$8,835,000 00
Amounts received from sales of buildings, receipts from bath-house, fines, etc.,	198,334 01
Total,	$9,033,334 01
Total charged to loans,	8,878,245 73
Balance remaining in hands of State Treasurer,	$155,088 28

METROPOLITAN PARKS LOAN FUND, SERIES II.

Original boulevard, chapter 288, Acts of 1894,	$500,000 00
General appropriation, chapter 472, Acts of 1896,	500,000 00
General appropriation, chapter 521, Acts of 1897,	1,000,000 00
Saugus Bridge Act, chapter 547, Acts of 1898,	100,000 00
General appropriation, chapter 428, Acts of 1899,	500,000 00
Mattapan Bridge Act, chapter 443, Acts of 1900,	75,000 00
Winchester Act, chapter 444, Acts of 1900,	50,000 00
Revere Beach Parkway Act, chapter 445, Acts of 1900,	200,000 00
General appropriation, chapter 172, Acts of 1902,	450,000 00
General appropriation, chapter 359, Acts of 1903,	110,000 00
Continuing appropriation, chapter 419, Acts of 1903, for 1903,	300,000 00
For 1904,	300,000 00
For 1905,	300,000 00
For 1906,	300,000 00
For 1907,	300,000 00
Alewife Brook and Fresh Pond Parkway Act, chapter 651, Acts of 1908,	50,000 00
	$5,035,000 00
To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1897,	100,000 00
Total amount of loans,	$5,135,000 00
Receipts from sales, etc.,	29,907 41
Total,	$5,164,907 41
Total charged to loans,	5,030,517 72
Balance remaining in hands of State Treasurer,	$134,389 69

NANTASKET BEACH LOAN.

Appropriation, chapter 464, Acts of 1899,	$600,000 00
Appropriation, chapter 456, Acts of 1901,	100,000 00
Total amount of loans,	$700,000 00
Receipts from rents, etc.,	5,881 50
Total,	$705,881 50
Total charged to loans,	705,881 50

Respectfully submitted,

JOHN WOODBURY,
Secretary.

DEC. 1, 1909.

REPORT OF THE ENGINEER.

Hon. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission.*

SIR: — I beg to submit the following report of the work of the Engineering Department for the year ending Nov. 30, 1909.

The work under the supervision and direction of the department is divided into two classes, — that of new construction work and that of maintenance and repair work. The amount of new construction work has diminished somewhat during the last year from what it has been previously, and the maintenance and repair work, especially upon the roads, has increased considerably.

In the work of maintenance, that which has most particularly required the services of this department has been the road repairs and treatments with tar and oils, shore protection, and additions and improvements to buildings.

The roadways have been kept generally in good condition by constant attention to repairs to the tarred and oiled surfaces and by re-treatments where necessary. The materials used for this work have been the same as previously used, heavy asphaltic oils upon the gravel surfaced roads and on some macadam, and refined tars and residual asphalts upon the greater portion of the macadam road surfaces. Calcium chloride solution has been used on some of the roadways which are not subjected to heavy automobile traffic, or where they are used to large extent by pedestrians, as at Nantasket and Nahant Beaches, and in the woods reservations. In the selection of the material to be used on the various roadways the kind of roadway surface and the existing traffic conditions have been considered, and that used which seemed to be best adapted to these conditions.

The type of roadway surfacing generally used during the year for new construction work has differed from that previously used, and consists of a crushed stone base of a thickness of 4 inches, with a gravel top or wearing surface from 2 to 3 inches in thickness, thoroughly saturated with heavy asphaltic oil.

The number of employees in the department has averaged 20 during the year, a reduction of 10 from that of last year. This reduction is due largely to the fact that the greater portion of the construction work has been confined to the section in the vicinity of Alewife Brook and Mystic River, and a small force could be worked to better advantage than when the work is more generally distributed about the district.

The total cost of conducting the department has been as follows: —

Services,	$24,072 24
Equipment,	92 72
Operating expenses,	2,029 79
Total,	$26,194 75

An appraisal of the property in charge of the department, omitting the value of maps, plans, notes and records, is as follows: —

Equipment: —		
Offices,	$2,153 82	
Surveying and drawing instruments,	2,726 34	
Automobile,	1,500 00	
Miscellaneous,	65 70	
		$6,445 86
Supplies: —		
General,		788 65
Total,		$7,234 51

Details of the work done under the direction and supervision of this department, both by contract and by the forces of the various divisions, are given in the following sections of parkway and reservation and in the tables appended.

Construction.

Parkways.

Alewife Brook Parkway. — Plans and specifications have been prepared for the construction of a new channel for Alewife Brook from Spy Pond to Mystic River. The work was designed in accordance with the recommendations of the State Board of Health for the sanitary improvement of the section drained by Alewife Brook.

By the construction of the tidal dam at Cradock Bridge, which has been completed, and by the excavation of a straight, wide and deep channel in the Upper Mystic River and Alewife Brook, it is the purpose to quickly carry off the surface water and to prevent the flooding of the marshes and low lands, and thereby improve the sanitary conditions.

On May 18, 1909, the following bids were received for the excavation of the channel of Alewife Brook: —

William H. Ellis, Boston,	$116,200 00
Antonio G. Tomasello, Dorchester,	116,200 00
Charles R. Gow Company, Boston,	112,000 00
B. Perini Company, Ashland,	107,800 00
Bruno & Petitti, Boston,	91,000 00
John J. Falvey, Somerville,	88,900 00
Coleman Brothers, Boston,	84,000 00
Coughlin & Shiels Company, Boston,	81,200 00
Auguste Saucier, South Framingham,	45,500 00

The contract was awarded to Auguste Saucier, the work was begun on June 14, 1909, and is now in progress. The portion of the new channel from Mystic River to Broadway, Somerville, that from Massachusetts Avenue to the Arlington Branch of the Boston & Maine Railroad, and a section from the Arlington Branch about 1,800 feet westerly toward Little and Spy ponds have been practically completed.

In the section between Broadway and Massachusetts Avenue, on account of the narrow limits to which the taking was confined, by the presence of the cemetery on the westerly side and the car barns of the Boston Elevated Railway Company on the easterly side, it was necessary to con-

struct retaining walls for the banks of the new channel for a distance of about 1,000 feet.

Plans and specifications were prepared for a gravity concrete wall and for a reinforced concrete wall, and bids received for both types of wall, so that if there was any material difference in the cost the cheaper might be built.

On Aug. 9, 1909, the following bids were received for this work: —

Gravity Wall.

W. H. Ellis, Boston,	$35,335 00
Auguste Saucier, South Framingham,	35,075 00
Coughlin & Shiels Company, Boston,	32,875 00
D. F. O'Connell Company, Dorchester,	28,925 00
John J. Falvey, Boston,	28,300 00
Bruno & Petitti, Boston,	26,700 00

Reinforced Concrete Wall.

Coughlin & Shiels Company, Boston,	$34,825 00
D. F. O'Connell Company, Dorchester,	29,000 00
John J. Falvey, Boston,	26,050 00
W. H. Ellis, Boston,	25,765 00
Bruno & Petitti, Boston,	25,650 00

The difference in cost was so slight that it was deemed advisable to construct the walls of the gravity type, and the contract was awarded to Bruno & Petitti. The work was begun Aug. 23, 1909, and is now in progress and about three-quarters completed.

Incidental to the work of excavating a new channel it has been necessary to deepen the old channel where it passes under Broadway and Massachusetts Avenue, and the Arlington Branch of the Boston & Maine Railroad. This requires the underpinning and rebuilding of the abutments of the bridges, and plans have been prepared, the work at Broadway Bridge has been completed, and that at Massachusetts Avenue Bridge is in progress. This work has been done in connection with and as a part of the contract for the work of building the retaining walls.

The work of lowering the branch of the Metropolitan Sewer which crosses the new channel near the Arlington

Branch of the Boston & Maine Railroad is in progress, and is being done by the Metropolitan Water and Sewerage Board.

The estimated cost of the work of purification of Alewife Brook to Dec. 1, 1909, has been as follows: —

Construction, contract No. 125,	$26,106 73	
Incidentals,	1,578 28	
Engineering and inspection,	1,326 53	
Total,		$29,011 54
Construction, contract No. 126,	$18,944 14	
Incidentals,	185 03	
Engineering and inspection,	745 68	
Total,		19,874 85
Grand total,		$48,886 39

Lynn Fells Parkway. — The settlement of a portion of the embankment of the section of this Parkway over the swamp between Tremont Street and Melrose Street has continued during this year, and it has been inadvisable to finish and surface it. During the months of October and November 5,767 cubic yards of filling material were furnished and placed in this location by the Rowe Contracting Company, and it was again brought up to subgrade. The total cost of this work was $3,171.85.

Mystic Valley Parkway. — Construction plans and specifications have been prepared for surfacing and finishing along the Mystic River from Medford Street, Arlington, to Powder House Boulevard, Somerville. On May 17, 1909, bids were received for this work as a part of the contract for surfacing and finishing the parkway and reservation from Medford Street, Arlington, to Main Street, Medford, and the contract was awarded to the lowest bidder, James H. Fannon.

The roadway surfacing used on this work has been that with the crushed stone base and gravel top, and the gravel has been treated with about 1¼ gallons of heavy asphaltic oil to the square yard.

MYSTIC VALLEY PARKWAY.—Entrance from Medford Street, Arlington.

The work was begun on May 27, 1909, and is now practically completed.

The estimated cost to Dec. 1, 1909, has been as follows: —

Construction, contract No. 124,	$18,668 47
Incidentals,	2,783 49
Engineering and inspection,	1,066 78
Total,	$22,518 74

Dredging for the deepening of the channel of the Mystic River has been in progress from time to time during the year in the vicinity of Alewife Brook outlet and above the River Street Bridge.

The underpinning of the abutments of the River Street Bridge, which is made necessary by the deepening of the channel, has been completed on the southerly abutment and the southerly side of the center pier.

The cost of the dredging and underpinning work has been $6,968.43.

Winthrop Parkway. — On Jan. 25, 1909, the following bids were received for building the Parkway from Eliot Circle to Leverett Avenue to subgrade, about 45,000 cubic yards of filling material being required in the work: —

William B. Munroe, Boston,	$64,975 00
Cenedella & Co., Milford,	47,775 00
F. S. & A. D. Gore Corporation, Dorchester,	42,025 00
Albert H. & Fred H. Eichorn, Boston,	41,000 00
Bruno & Petitti, Boston,	40,700 00
B. Perini & Co., Ashland,	33,050 00
Auguste Saucier, South Framingham,	30,975 00
Charles G. Craib, Winthrop,	29,375 00
Coleman Brothers, Boston,	26,800 00
Rowe Contracting Company, Melrose,	25,400 00
Richmond F. Hudson, Melrose,	24,950 00

The contract was awarded to Richmond F. Hudson; the work was begun on Feb. 1, 1909, and was completed on July 26, 1909.

The total estimated cost of this work has been as follows: —

Construction, contract No. 119,	$19,780 05
Incidentals,	469 56
Engineering and inspection,	681 49
Total,	$20,931 10

Surfacing and finishing was postponed to allow time for settlements, as a portion of the fill was over marsh land, but only slight settlement has so far taken place.

A portion of the Parkway from Eliot Circle about 800 feet southerly is located over the original location of Ocean Avenue, and, as it was necessary that it be used as a traffic street for the "Pier District," it was decided to surface and finish this portion as soon as possible.

This work was done by the maintenance forces of the division under Superintendent West, and the total cost has been $6,569.77.

The work was begun on Oct. 2, 1909, and was completed Nov. 11, 1909.

Reservations.

Charles River Reservation. — The section of road through the United States Arsenal, from Arsenal Street to North Beacon Street, which was built to subgrade in 1906 and 1907, has been surfaced and finished. Bids for this work were received on April 5, 1909, as follows: —

B. Perini & Co., South Framingham,	$23,429 75
Peter F. Connolly, Jamaica Plain,	19,689 50
Richmond F. Hudson, Melrose,	18,596 25
Luigi C. Carhia, Boston,	18,424 50
H. M. McBride & Co., Brighton,	18,288 10
Rowe Contracting Company, Brighton,	17,765 00
Frank Williams & Co., Boston,	17,296 00
Charles G. Craib, Boston,	17,188 75
T. H. Gill Company, Somerville,	16,743 75
John J. Martin & Pierce Condon, Watertown,	14,580 50

The contract was awarded to Martin & Condon; the work was begun April 7, 1909, and completed Oct. 2, 1909.

The surface of this roadway is constructed with the crushed stone base and gravel top, treated with heavy asphaltic oil.

The total cost of this work has been as follows: —

Construction, contract No. 120,	$19,123 64
Incidentals,	850 29
Engineering and inspection,	1,102 44
Total,	$21,076 37

Middlesex Fells Reservation. — The work of constructing electric railway on the location granted to the Boston & Northern Street Railway Company by this Commission has been in progress since June of this year. The work consists of building the roadbed for a distance of about 1¼ miles in the Reservation and about ¾ of a mile in Main Street, Stoneham, to connect with the existing line, and the construction of two reinforced concrete arch bridges and one reinforced concrete trestle. The work has been done by the Railway Company, by contracts, under the general inspection of this department. It is expected that it will be completed early next year.

Mystic River Reservation. — The work of constructing tidal dam, with boat-lock, weirs, tide gates and sluice gates at Cradock Bridge, Main Street, Medford, has been completed. A small amount of work under contract with Coleman Brothers, which could not be completed last year on account of winter weather, was finished this spring. The erection of four of the eight tide gates, the lock gates and sluice gates, which depended upon the completion of that work, was also completed in the early part of this year.

The boat-lock was in operation during the latter part of the year, but was very little used on account of the fact that the water in the river above the dam was drawn to a low level to facilitate the dredging operations which were in progress, and therefore there was practically no boating on the upper river. Quite a number of boats passed through the lock late in the fall to go into winter quarters on the upper river. The lock is 60 feet long by 15 feet wide. Alongside and

parallel to the boat-lock, a rollway for canoes and small boats has been constructed.

The tide gates and lock gates were contracted for and constructed, and four of the tide gates erected last year. The four metal sluice gates, 8 feet by 8 feet, were designed and built by the Coffin Valve Company. They are of the rising stem type, and are operated by electricity. The contract for these gates was made Dec. 9, 1908, with the Coffin Valve Company, and the work of construction was done during the winter. They were installed in June, and the motors and wiring were installed in July of this year.

The manner of operation of this dam and gates is as follows: The top of the protecting walls is at an elevation of not less than 15.5, or about 5½ feet above mean high water, and at about the elevation of extreme high water. The top of the weirs is at elevation 6.75, or about 3 feet below mean high water, and is the elevation at which it is proposed to maintain the basin except when it is drawn down for special purposes. These weirs are constructed in a V-shaped form for the purpose of obtaining a maximum length for the outflow of the water which accumulates in the basin during high tide. By this form of construction a total length of 400 feet of weir is obtained at a point in the river where the width from bank to bank is only about 110 feet.

The weirs are protected by back-water tide gates, which automatically close when the tide begins to rise. The drainage water of the watershed of the basin then accumulates in the basin until the outgoing tide reaches the same elevation as that of the water in the basin. The tide gates then open automatically, and allow the water which has accumulated in the basin during high tide to flow out until it is lowered to the elevation of the top of the weirs, when the outflow ceases.

When freshets occur, and a large quantity of water accumulates in the basin between tides, it is proposed to open the sluice gates to assist in lowering the water in the basin.

The total cost of the work of constructing the additional span to Cradock Bridge, dam, gates, etc., has been as follows: —

MYSTIC VALLEY PARKWAY. — Lock at Cradock Bridge.

Previously reported: —			
Construction and incidentals, contract No. 107,		$15,413 20	
Engineering and inspection,		2,723 51	
Total,			$18,136 71
Previously reported: —			
Construction and incidentals, contract No. 107A,	$35,415 41		
Engineering and inspection,	3,313 28		
		$38,728 69	
Year ending Nov. 30, 1909: —			
Construction, contract No. 107A,	$8,874 82		
Incidentals,	2,114 76		
Engineering and inspection,	989 73		
		11,979 31	
Total,			50,708 00
Year ending Nov. 30, 1908: —			
Construction, contract No. 112,	$6,128 50		
Engineering and inspection,	6 25		
		$6,134 75	
Year ending Nov. 30, 1909: —			
Construction, contract No. 112,	$1,081 50		
Incidentals,	6 51		
Engineering and inspection,	10 00		
		1,098 01	
Total,			7,232 76
Previously reported: —			
Construction and incidentals, contract No. 114,	$18,001 02		
Engineering and inspection,	598 48		
		$18,599 50	
Year ending Nov. 30, 1909: —			
Construction, contract No. 114,	$9,569 62		
Incidentals,	1,370 27		
Engineering and inspection,	1,356 66		
		12,296 55	
Total,			30,896 05

Year ending Nov. 30, 1908: —			
Construction, contract No. 116,	$5,848 50		
Engineering and inspection,	6 50		
		$5,855 00	
Year ending Nov. 30, 1909: —			
Construction, contract No. 116,	$2,186 99		
Incidentals,	267 93		
Engineering and inspection,	65 29		
		2,520 21	
Total,			$8,375 21
Construction, contract No. 118,		$5,405 90	
Incidentals,		715 09	
Engineering and inspection,		50 62	
Total,			6,171 61
Construction, contract No. 122,		$862 84	
Incidentals,		16 72	
Engineering and inspection,		21 43	
Total,			900 99
Grand total,			$122,421 33

The work of dredging in the river to straighten and deepen the channel to conform with the recommendations of the State Board of Health has been in progress during the year. The material excavated from the river has generally been used for the subgrading of roads, approaches to bridges and for filling old channel of the river, which has been abandoned by the work of straightening. The cost of this work has been $11,012.02.

The work of surfacing and finishing the driveways along the Mystic River, from the end of the Mystic Valley Parkway at the Powder House Boulevard, Somerville, to Main Street, Medford, has been done under contract with James H. Fannon, which also included the work from Medford Street to the Powder House Boulevard.

The following bids were received for this work on May 17, 1909: —

John A. Gaffey, Medford,	$96,392 50
Coughlan & Shiels Company, Boston,	95,063 60

John E. Palmer, Boston,	$80,359 00
John J. Falvey, Somerville,	69,996 00
Bruno & Petitti, Boston,	68,240 50
Peter F. Connolly, Jamaica Plain,	63,939 50
Richmond F. Hudson, Melrose,	62,676 50
Rowe Contracting Company, Brighton,	62,175 00
Wm. J. McCarthy Company, Somerville,	61,711 20
Coleman Brothers, Boston,	59,397 00
J. H. Fannon, Somerville,	56,188 70

James H. Fannon was the lowest bidder and was awarded the contract.

The work on this section is in progress, but will probably not be completed until next spring, as it will not be possible to continue the work during the winter.

The roadway surfacing on this section is the same as that on upper section, — crushed stone base with gravel top surface, treated with heavy asphaltic oil.

The estimated cost of this work to Dec. 1, 1909, has been as follows: —

Construction, contract No. 124,	$20,815 85
Incidentals,	1,074 74
Engineering and inspection,	1,332 77
Total,	$23,223 36

Maintenance.

The details of the road repairs and treatments are given in the appended table, No. 4, and no further description is necessary, except to explain the various classes of work more fully.

When the road is described in the table as reconstructed, it means that an old earth roadway is excavated to subgrade, sometimes with changes in the line of grade, and a new surface of crushed stone or gravel, or a combination of both, is constructed thereon. The depth of the surfacing material is generally about 6 inches.

By resurfacing it is meant that a macadam or gravel surfaced road which has become badly worn is loosened up on the surface to a depth of about 3 inches by the use of a scarifier. The surface is then reshaped and from 2 to 3

inches of new material added, and the road rolled and treated with bituminous binder in the same manner as in new construction work.

By surface treatment is meant the application of refined tars, asphaltic oils or calcium chloride to the surfaces of roadways which are in good condition, for their preservation and for the suppression of the dust. Usually it is necessary only to clean the roadway before treating, and give a light dressing of crushed stone screenings, sand or gravel after treating.

For the work of reconstruction and resurfacing of roadways in Middlesex Fells Parkway and Reservation in the city of Medford, the surfacing gravel was obtained from land of the city of Medford on Elm Street. Permission was given to this Commission to use the gravel free of cost.

Other maintenance work than that on the roads, done under the supervision and direction of this department, has been as follows: —

Revere Beach Parkway. — The section of the Parkway from Broadway, Revere, westerly about 2,500 feet to Borden Street lies at the foot of a long slope. The natural soil throughout this locality is of a clayey nature, very springy, and is particularly unsuitable for subgrade upon which to construct macadam road surface, especially at the location of the road, under which the natural drainage of a considerable area passes.

At the time of construction an underdrain was built along the upper side line to intercept this water, but it has not been thoroughly effective, and the road surface becomes soft and breaks up to a considerable extent throughout this section in the winter and spring, when the frost comes out of the ground.

For the purpose of improving these conditions another 6-inch underdrain, 2,500 feet in length, has been constructed along the northerly or upper side of the roadway. The drain pipe is laid with open joints, and the trench is backfilled with coarse gravel screenings. The work was done by the maintenance forces of the division at a total cost of $1,275.75.

An entrance to the Parkway for Plymouth Street in Everett has been constructed. This work consisted of filling

MIDDLESEX FELLS RESERVATION. — Spot Pond and Street Railway Terminal.

to subgrade, macadam surfacing, walks and drains from the present driveway to the northerly taking line, a distance of about 100 feet. The work was done by the maintenance forces of the division.

Beaver Brook Reservation. — Engineering services have been furnished for the construction of sanitary building and for grading in vicinity of same.

Charles River Reservation. — Engineering services were furnished for the construction to subgrade of a road along the Charles River from Norumbega Tower to Weston Bridge. This work has been done by the forces of the division under direction of Superintendent Gilman. The work is not yet completed, but has been suspended during the winter. The total cost to date has been $2,486.99.

Lynn Shore Reservation. — The portion of the beach from a point opposite Prescott Place about 800 feet northerly has been lowered considerably by the action of the sea since the construction of the sea wall at this location, and had nearly reached the level of the base of the wall at some points, and threatened undermining. It was decided to protect this portion before any serious damage was done to the wall. Concrete aprons about 10 feet in width, with toe walls extending down about 3 feet below the base of the sea wall at the outer edge, were constructed. Against the outside of these toe walls spruce sheeting was driven to a depth of about 5 feet below the base of the wall, or 2 feet above mean low water, thus protecting the wall to that depth, which is about 5 feet below the present elevation of the beach at its lowest points. This work has been done by the maintenance forces of the division under Superintendent West, and the total cost has been $4,541.51.

Nantasket Beach Reservation. — In connection with the work of building a new kitchen in the Rockland Café, drains and concrete floors were laid under the direction and supervision of this department. The drains were laid by employees of the Commission, and the floors by contract, by Warren Brothers Company, the lowest bidders. The bids for the floors were as follows: —

Simpson Brothers Corporation, Boston, ...	$931 00
Warren Brothers Company, Boston, ...	725 00

The catch-basin drains at the southerly end of the Reservation, about 600 feet in length, have been relaid. They were originally laid by the town, before the Reservation was taken by this Commission, and had become broken and obstructed. The work was done by the maintenance forces of the division, and the cost was $118.80.

The cesspools connected with the public sanitaries at the bath-house had no outlet, and did not drain properly and sometimes overflowed. There is an existing sewer at the hotel, about 500 feet distant from these cesspools, and a connection has been made with this sewer. The work was done by the maintenance forces, and the cost was $222.82.

Plans have been prepared for the construction of a refuse incinerator, to be located in the rear of the laundry building.

Quincy Shore Reservation. — The outlet of the culvert at the southerly end of the Reservation has continually become obstructed by the sand from the beach washing into the depression and preventing the operation of the tide gate. A wooden box extension has been constructed to prevent this obstruction. The extension is 80 feet in length, and is secured to piles driven in the beach. The work was done by the maintenance forces of the division, and the cost was $223.29.

A conduit for the police signal system has been laid the entire length of the Reservation. This work was also done by the maintenance forces.

Revere Beach Reservation. — The refuse collected each day along the roadway and beach has previously been disposed of by burning on the beach on the southerly portion of the Reservation. The quantity has recently become so great that this method was objectionable, and plans were prepared in the early part of the year for the construction of an incinerator. The location selected was in the old boiler room, under the bath-house, which has been used only for the pumps and for storage. By a rearrangement of the pumps sufficient space was obtained to construct a furnace 10 feet 6 inches by 7 feet 8 inches inside dimensions. By locating the furnace in this room not only was the usual expense of a building saved, but also the cost of a stack, as

it was possible to connect into the existing chimney, which is ample for all purposes. Adjoining the boiler room is a room for the storage of coal, which can be used for storage of refuse if necessary. An areaway 10 feet in width has been built from this storage room out under the sidewalk, a distance of 20 feet, to the gutter line, so that the teams may back up to the curb and deposit their loads, through an opening in the gutter, into this areaway, whence it is fed into the incinerator. This work, which includes moving of pumps and boiler, building incinerator and areaway, and all incidental work, was done almost entirely by the maintenance forces of the division under Superintendent West, and under the direction and supervision of this department, and the total cost was $2,323.75.

On the portions of the easterly promenade along the shelters at Beach Street, Bath-house and Revere Street, granolithic walks have been laid. Each of these shelters is about 500 feet long and the promenade is 20 feet wide, or about 3,500 square yards of granolithic walk.

On April 14, 1909, the following bids were received for this work: —

Thomas J. Hind, Boston, ...	$1.34	per square yard.
W. A. Murtfeldt Corporation, Boston, .	1.16	per square yard.
Simpson Brothers Corporation, Boston, .	1.06⅔	per square yard.
Warren Brothers Company, Boston, . .	.92½	per square yard.

The contractors were allowed, under the specifications, to obtain the sand and gravel for the work from the beach, which accounts for the low price. Also, the excavating of any soft and spongy material which might be found at subgrade was to be paid for as extra work.

The contract was awarded to Warren Brothers Company; the work was begun April 26, 1909, and completed May 25, 1909. The total cost of the work was $3,592.81.

General.

All bridges under the care and control of this Commission have been inspected and report made to the Secretary of their condition, with recommendations for necessary repairs.

One hundred and eleven permits for work in the parkways and reservations have been granted during the year to cities, towns, corporations and individuals, which have required the supervision and inspection of this department. The total cost of this inspection has been $299.85.

The following tables are appended to this report: —

TABLE 1. Lengths of parkways.
TABLE 2. Summary of plan work.
TABLE 3. Summary of vouchers.
TABLE 4. Summary of cost of road repairs and maintenance.
TABLE 5. Prices for items of construction.

Respectfully submitted,

JOHN R. RABLIN,
Engineer.

DEC. 1, 1909.

TABLE 1. — *Length of Parkways, corrected to Dec. 1, 1909.*

DESCRIPTION.	Constructed (Miles).	Under Construction (Miles).	Remainder (Miles).	Totals (Miles).
Alewife Brook: Mystic River to Spy Pond, Somerville, Arlington, Cambridge and Belmont,	–	–	3.19	3.19
Blue Hills: Mattapan Square to Harland Street Entrance of Blue Hills Reservation, Boston and Milton,	2.27	–	–	2.27
Fresh Pond: Mount Auburn Street to Huron Avenue, Cambridge,	.52	–	–	.52
Furnace Brook: Quincy Shore Reservation to Blue Hills Reservation, Quincy,	1.49	.84	1.99	4.32
Lynn Fells Parkway: Middlesex Fells Reservation to Green Street, Stoneham and Melrose,	.68	.36	–	1.04
Lynnway: Revere Beach Reservation, to northerly side of Saugus River, Revere and Lynn,	.69	–	–	.69
Middlesex Fells: Broadway to Middlesex Fells Reservation, Somerville, Medford and Malden,	5.11	–	–	5.11
Mystic Valley: High Street to Middlesex Fells Reservation, Medford and Winchester,	2.90	–	–	2.90
Nahant Beach: Lynn Line at Washington Street to Spring Road, Nahant,	.25	–	1.98	2.23

TABLE 1. — *Length of Parkways, etc.* — Concluded.

DESCRIPTION.	Constructed (Miles).	Under Construction (Miles).	Remainder (Miles).	Totals (Miles).
Neponset River: junction of River Street and Damon Street to Blue Hills Reservation,	.53	–	1.71	2.24
Revere Beach: Revere Beach Reservation to Middlesex Fells Parkway and Mystic River Reservation, Revere, Chelsea, Everett and Medford,	5.24	–	–	5.24
Winthrop Parkway: Charles Eliot Circle to Leverett Avenue, Revere,	.06	.26	.10	.42
Totals,	19.74	1.46	8.97	30.17

TABLE 2. — *Summary of Maps and Plans prepared during the Year ending Nov. 30, 1909, omitting Blue and Other Prints.*

	Abandonments and Conveyances.	Construction.	Copies.	Entrances.	General.	Land and Settlement.	Restrictions.	Takings and Conveyances to Commonwealth.	Topographical.	Working Plans (Office).	Totals.
Parkways.											
Alewife Brook,	–	8	42	–	3	4	–	9	–	10	76
Blue Hills,	–	–	–	–	–	–	–	7	–	–	7
Furnace Brook,	–	1	–	–	–	–	–	5	–	1	7
Fresh Pond,	2	–	–	2	–	–	–	1	–	–	5
Lynnway,	–	–	–	1	–	–	–	–	–	–	1
Lynn Fells,	2	–	–	–	4	–	–	–	–	2	8
Middlesex Fells,	1	3	–	2	1	–	–	3	–	8	18
Mystic Valley,	–	–	–	–	1	–	1	1	1	–	4
Nahant Beach,	–	4	–	–	–	–	–	2	–	–	6
Neponset River,	–	–	–	–	–	–	–	–	–	1	1
Old Colony,	–	–	3	–	1	–	–	–	–	–	4
Revere Beach,	5	–	1	2	–	2	2	3	–	–	15
Spy Pond,	–	–	–	–	–	–	–	–	–	1	1
Winthrop,	1	1	–	–	1	–	–	–	–	2	5
Totals,	11	17	46	7	11	6	3	31	1	25	158
Reservations.											
Blue Hills,	–	2	–	–	–	–	–	–	1	2	5
Beaver Brook,	–	1	–	–	–	–	–	–	–	–	1
Charles River,	10	5	1	–	2	1	2	6	–	2	29
Lynn Shore,	2	2	–	–	–	–	–	2	–	5	11
Middlesex Fells,	–	4	–	–	–	–	–	–	–	3	7
Mystic River,	–	34	–	1	2	–	–	2	1	16	56
Nantasket Beach,	–	1	1	–	–	–	–	2	–	–	4
Neponset River,	–	1	–	–	–	1	–	–	–	–	2
Quincy Shore,	–	2	–	–	–	–	–	2	–	1	5
Revere Beach,	3	4	–	1	3	1	–	–	1	1	14
Stony Brook,	–	1	–	–	1	1	–	1	–	–	4
Winthrop Shore,	5	6	–	–	–	–	–	1	–	1	13
Totals,	20	63	2	2	8	4	2	16	3	31	151
Grand totals,	31	80	48	9	19	10	5	47	4	56	309

TABLE 3. — *Summary of Vouchers of the Engineering Department, including, under Construction, the Entire Estimated Value of Work performed during the Year ending Nov. 30, 1909.*

	Construction.	Incidental to Engineering Department.									Grand Totals.
		Equipment.			Operating Expenses.						
		Offices.	Surveying and Drawing Instruments.	Totals.	Engineering and Surveying.	Offices.	Supplies and Repairs.	Travel.	Incidental Expenses.	Totals.	
Metropolitan Parks Loan Fund.											
General expense I.,	–	$8 02	$13 04	$21 06	$540 39	$0 03	$229 69	$3 75	$35 06	$808 92	$829 98
Alewife Brook Purification,	$46,584 93	–	–	–	2,369 52	–	162 45	30 62	52 72	2,615 31	49,200 24
Beaver Brook Reservation,	–	–	–	–	–	–	–	–	95	95	95
Blue Hills Reservation,	–	–	–	–	–	–	–	–	62	62	62
Charles River Reservation,	19,832 32	–	–	–	942 58	–	87 76	40 25	35 78	1,106 37	20,938 69
Lynn Shore Reservation,	–	–	–	–	26 90	–	–	–	25	27 15	27 15
Middlesex Fells Reservation,	–	–	–	–	26 29	–	6 00	–	2 28	34 57	34 57
Mystic River Reservation,	59,816 65	–	–	–	3,305 49	28 67	89 37	50 96	46 45	3,520 94	63,337 59
Neponset River Reservation,	–	–	–	–	2 40	–	–	–	30	2 70	2 70
Quincy Shore Reservation,	–	–	–	–	51 90	–	–	9 00	70	61 60	61 60
Revere Beach Reservation,	–	–	–	–	94 39	–	–	12 50	1 10	107 99	107 99
Winthrop Shore Reservation,	562 16	–	–	–	199 32	–	–	–	60	199 92	762 08
Totals,	$126,796 06	$8 02	$13 04	$21 06	$7,559 18	$28 70	$575 27	$147 08	$176 81	$8,487 04	$135,304 16
Metropolitan Parks Loan Fund, Series II.											
General expense, II.,	–	$9 20	$50 94	$60 14	$447 66	$25 56	$222 14	$10 75	$29 76	$735 87	$796 01
Alewife Brook Parkway,	–	–	–	–	221 41	–	–	–	4 28	225 69	225 69
Blue Hills Parkway,	–	–	–	–	35 80	–	–	–	30	36 10	36 10
Blue Hills Roads,	–	–	–	–	44 80	–	–	–	1 00	45 80	45 80
Charles River Speedway,	–	–	–	–	94 54	–	–	–	2 85	97 39	97 39
Fresh Pond Parkway,	–	–	–	–	–	–	–	–	40	40	40
Furnace Brook Parkway,	–	–	–	–	29 02	–	–	4 50	10	33 62	33 62
Lynn Fells Parkway,	$3,436 69	–	–	–	38 78	–	–	–	50	39 28	3,475 97

Middlesex Fells Parkway,	3,374 33	–	–	–	103 62	–	–	66 00	6 40	176 02	3,550 35
Middlesex Fells Roads,	–	–	–	–	68 26	–	–	–	55	68 81	68 81
Mystic Valley Parkway,	30,195 56	–	–	–	1,425 43	–	79 98	15 86	22 65	1,543 92	31,739 48
Nahant Beach Parkway,	–	–	–	–	3 40	–	–	–	–	3 40	3 40
Neponset River Parkway,	–	–	–	–	6 00	–	–	–	40	6 40	6 40
Revere Beach Parkway,	–	–	–	–	54 70	–	–	–	3 40	58 10	58 10
Winthrop Parkway,	21,727 95	–	–	–	407 29	–	62 81	35 00	1 08	506 18	22,234 13
Totals,	$58,734 53	$9 20	$50 94	$60 14	$2,980 71	$25 56	$364 93	$132 11	$73 67	$3,576 98	$62,371 65
Metropolitan Parks System Maintenance.											
General expense,	–	$5 30	–	$5 30	$6,759 00	$62 50	$102 60	$70 60	–	$6,994 70	$7,000 00
Metropolitan Parks Boulevard Maintenance.											
General expense,	–	$6 22	–	$6 22	$6,752 65	$3 00	$159 81	$77 85	–	$6,993 31	$6,999 53
Metropolitan Parks Expense Fund.											
Engineering,	–	–	–	–	–	$16 38	–	–	–	$16 38	$16 38
Middlesex Fells Parkway,	$1,477 67	–	–	–	–	–	–	–	–	–	1,477 67
Mystic Valley Parkway,	5,000 00	–	–	–	–	–	–	–	–	–	5,000 00
Nantasket Beach Reservation,	749 56	–	–	–	–	–	–	$30 78	$4 75	35 53	785 09
Revere Beach Reservation,	3,592 81	–	–	–	–	–	–	5 00	–	5 00	3,597 81
Totals,	$10,820 04	–	–	–	–	$16 38	–	$35 78	$4 75	$56 91	$10,876 95
Old Colony Avenue Parkway,	–	–	–	–	$20 70	–	–	–	–	$20 70	$20 70
Grand totals,	$196,350 63	$28 74	$63 98	$92 72	$24,072 24	$136 14	$1,202 61	$463 42	$255 23	$26,129 64	$222,572 99
Credit. — Metropolitan Parks Expense Fund.											
Engineering,	–	–	–	–	–	$21 75	$5 86	–	–	$27 61	$27 61
Net expenditure,	$196,350 63	$28 74	$63 98	$92 72	$24,072 24	$114 39	$1,196 75	$463 42	$255 23	$26,102 03	$222,545 38

TABLE 4. — *Summary of Cost of Road Repairs and Maintenance, 1909.*

PARKWAY OR RESERVATION.	Length (Feet).	Width of Roadway (Feet).	Square Yards.	Cost per Square Yard in Detail.							Total Amount.	Remarks.	Location.
				Labor (Cents).	Gravel (Cents).	Broken Stone (Cents).	Sand (Cents).	Bituminous Binder or Dust Layer. Kind of Material.	Cost (Cents).	Total Cost (Cents).			
Blue Hills Parkway, .	15,200	26 and 36	62,100	1	–	½	–	Asphaltoilene (Good Roads Improvement Company).	3 1/10	4⅜	$2,839 43	Surface treatment,	Mattapan Bridge to Canton Avenue.
Charles River Reservation.	13,100	40, 50 and 60	76,100	2	–	–	–	Calcium chloride, .	7/10	2 7/10	2,151 52	Surface treatment,	Soldiers' Field Road and Charles River Speedway.
Charles River Reservation.	5,000	24	13,333	9/10	7/10	–	–	Liquid asphalt (Indian Refining Company).	3½	5 1/10	683 28	Surface treatment,	Riverside Street to North Beacon Street, Watertown.
Fresh Pond Parkway, .	2,700	40	12,000	1/10	–	–	–	Calcium chloride, .	1½	1⅝	194 92	Surface treatment,	Entire length.
Furnace Brook Parkway.	7,750	36 and 40	31,010	1/10	–	–	–	Calcium chloride, .	9/10	4/10	125 92	Surface treatment,	Adams Street to Blue Hills Reservation.
Lynnway, ...	2,350	40	10,440	2 1/10	–	1 9/10	–	Tarite-asphalt (American Tar Company).	2½	6½	680 02	Surface treatment,	Northern Circle to Saugus River.
Lynn Fells Parkway, .	2,600	40	11,555	7/10	–	–	–	Calcium chloride, .	2	2 7/10	307 61	Surface treatment,	Middlesex Fells Reservation to Tremont Street, Melrose.
Lynn Shore Reservation and Nahant Drive.	7,180	40	34,817	⅛	–	–	–	Calcium chloride, .	1⅝	1⅝	611 68	Surface treatment,	Entire length.
Middlesex Fells Reservation.	2,400	20	5,333	27⅜	17⅘	19⅘	–	Calcium chloride, .	1⅝	66⅘	3,561 48	Construction, .	Emerson Street Border Road, entire length.
Middlesex Fells Reservation.	800	20	1,778	12 8/10	20	–	–	Calcium chloride, .	⅜	32 9/10	584 94	Resurfacing, .	South Street, New South Street to Pond Street.
Middlesex Fells Reservation.	3,000	18	6,000	7/10	–	–	–	Calcium chloride, .	1 5/10	2	122 74	Surface treatment,	Woodland Road.
Middlesex Fells Reservation.	1,700	18	3,400	3/10	–	–	–	Calcium chloride, .	9/10	1⅛	39 53	Surface treatment,	Pond Street.

Middlesex Fells Reservation.	3,000	18	6,000	2⅛	17 7/10	-	-	Asphaltic oil (Texas Company).	1½	21⅜	1,285 50	Resurfacing, .	Elm Street, entire length.
Middlesex Fells Reservation.	4,790	19	10,112	14	21 9/10	24 3/10	-	Liquid asphalt, . .	6⅜	66⅛	6,754 93	Reconstruction,[1] .	Forest and Main streets.
Middlesex Fells Reservation.	3,220	19	6,798	2⅛	-	-	-	Asphaltic oil (Texas Company).	⅛	3	200 83	Surface treatment,	Forest and Main streets.
Middlesex Fells Reservation.	1,330	19	2,808	25 3/10	-	15 3/10	-	Tarite-asphalt, . .	15⅛	55⅛	1,565 72	Reconstruction,[1] .	Main Street.
Middlesex Fells Reservation.	880	20	1,956	½	-	-	-	Asphaltic oil (Texas Company).	1⅛	1 7/10	34 00	Surface treatment,	New South Street.
Mystic Valley Parkway,	2,070	36	8,280	14	18 9/10	18⅛	-	Liquid asphalt, . .	7⅜	58 7/10	4,866 22	Reconstruction,[1] .	High Street, West Medford, to Main Street, Winchester.
Mystic Valley Parkway,	8,600	36	34,400	⅜	-	-	-	Asphaltic oil (Texas Company).	9/10	1 3/10	459 75	Surface treatment,	High Street, West Medford, to Main Street, Winchester.
Mystic Valley Parkway,	1,900	34	7,178	4⅜	-	3⅜	-	Tarvia-asphalt (Barrett Manufacturing Company).	4 9/10	12 7/10	914 50	Surface treatment,	Northern extension, entire length.
Middlesex Fells Parkway.	600	35	2,333	25	-	18⅛	-	Tarvia-asphalt (Barrett Manufacturing Company).	8⅜	51⅛	1,208 41	Reconstruction,[1] .	Approach to Wellington Bridge (southerly).
Middlesex Fells Parkway.	6,500	26 and 40	20,955	3⅛	-	2 7/10	-	Tarvia-asphalt (Barrett Manufacturing Company).	2 9/10	8⅛	1,837 97	Surface treatment,	Wellington Bridge to Emerald Street.
Middlesex Fells Parkway.	2,600	25	7,222	11⅜	-	7 1/10	-	Tarvia-asphalt (Barrett Manufacturing Company).	9⅛	28½	2,060 70	Resurfacing, .	Fellsway extension (traffic road).
Middlesex Fells Parkway.	2,300	30 and 36	8,000	3 1/10	-	2⅜	-	Tarvia-asphalt (Barrett Manufacturing Company).	3 7/10	9⅜	753 08	Surface treatment,	Fellsway East.
Middlesex Fells Parkway.	3,200	36	12,800	19 1/10	16 8/10	-	-	Asphaltic oil (Texas Company).	1	19⅛	2,464 97	Resurfacing, .	Fellsway West, northerly roadway, Salem to Fulton Street.
Neponset River Parkway.	2,750	26	7,944	⅜	-	-	-	Asphaltic oil (Standard Oil Company).	3⅛	3⅜	304 95	Surface treatment,	Brush Hill Road to Blue Hill Avenue.
Nantasket Beach Reservation.	3,760	40	24,935	½	-	-	-	Calcium chloride, .	3	3½	865 09	Surface treatment,	Entire length.
Quincy Shore Reservation.	11,800	24 and 40	37,155	1/10	-	-	-	Calcium chloride, .	3/10	4/10	155 00	Surface treatment,	Hancock Street, Atlantic, to National Sailors' Home, Quincy.

[1] Includes subgrading.

TABLE 4. — *Summary of Cost of Road Repairs and Maintenance, 1909* — Concluded.

PARKWAY OR RESERVATION.	Length (Feet).	Width of Roadway (Feet).	Square Yards.	Cost per Square Yard in Detail.							Total Amount.	Remarks.	Location.
				Labor (Cents).	Gravel (Cents).	Broken Stone (Cents).	Sand (Cents).	Bituminous Binder or Dust Layer.		Total Cost (Cents).			
								Kind of Material.	Cost (Cents).				
Revere Beach Parkway,	5,075	28	13,139	1⅜	–	1 7/10	1/10	Tarvia-asphalt, . .	2⅜	5⅝	769 18	Surface treatment,	Middlesex Avenue to Main Street.
Revere Beach Parkway,	5,200	26 and 36	17,189	9/10	–	–	–	Tarvia-asphalt, . .	½	1⅜	232 67	Patching, . .	Main Street to Everett Avenue.
Revere Beach Parkway,	3,300	36	13,200	8 9/10	3⅜	–	⅛	Asphaltic oil (Gulf Refining Company).	7⅛	19 1/10	2,509 00	Resurfacing, .	Second Street to Everett Avenue, northerly roadway.
Revere Beach Parkway,	700	36	2,333	1 7/10	–	1 7/10	–	Tarvia-asphalt, . .	3 9/10	6 7/10	157 67	Surface treatment,	Everett Avenue to County Road.
Revere Beach Parkway,	1,600	26	4,622	6⅛	–	5 7/10	–	Asphaltic oil (Gulf Refining Company).	4 7/10	16⅝	766 02	Resurfacing, .	Washington Avenue to Garfield Avenue.
Revere Beach Parkway,	4,100	36	16,400	1⅜	–	9/10	–	Tarvia-asphalt, . .	1⅜	3 9/10	648 82	Surface treatment,	Garfield Avenue to Broadway, Revere.
Revere Beach Parkway,	3,600	36	12,900	2 7/10	–	1	–	Tarvia-asphalt, . .	3 4/10	7 1/10	907 40	Surface treatment,	Stowers Court to Broadway, Revere.
Revere Beach Reservation.	1,800	40	6,800	1 9/10	–	9/10	–	Tarite-asphalt, . .	2 9/10	5 7/10	389 27	Surface treatment,	Eliot Circle to Shirley Avenue.
Revere Beach Reservation.	4,300	40	16,240	⅜	–	–	–	Tarite-asphalt, . .	1½	2 1/10	341 83	Patching, . .	Shirley Avenue to Revere Street.
Revere Beach Reservation.	7,900	40	29,840	1	–	1⅜	–	Liquid asphalt, . .	2⅛	4⅜	1,349 55	Surface treatment,	Revere Street to Northern Circle.
Stony Brook Reservation.	13,075	16	23,247	⅝	–	–	–	Asphaltic oil (Standard Oil Company).	2⅜	3⅛	738 04	Surface treatment,	Reservation Road, Washington Street to Gordon Avenue and West Glenwood Avenue.

TABLE 5. — *Prices paid for Principal Items of Construction.*

	Parkways.				Reservations.			
	Winthrop.	Mystic Valley.	Alewife Brook Purification.		Mystic River.			Charles River.
CONTRACT No.	119	124	125	126	114	122	124	120
Drains.								
24-inch vitrified pipe (lineal feet),	-	-	-	-	-	-	-	$1 00
20-inch vitrified pipe (lineal feet),	-	$1 10	-	-	-	-	$1 10	-
18-inch vitrified pipe (lineal feet),	-	90	-	-	-	-	90	-
15-inch vitrified pipe (lineal feet),	-	70	-	-	-	-	70	-
12-inch vitrified pipe (lineal feet),	-	50	-	-	-	-	50	-
10-inch vitrified pipe (lineal feet),	-	40	-	-	-	-	40	25
6-inch vitrified pipe (underdrain) (lineal feet),	-	30	-	-	-	-	30	-
Edgestones.								
Furnishing and setting, straight (lineal foot),	-	1 00	-	-	-	-	1 00	90
Furnishing and setting, curved (lineal foot),	-	1 25	-	-	-	-	1 25	1 10
Fence.								
Iron fence, Boston pattern (lineal feet),	-	-	-	-	-	$2 12	-	2 50

TABLE 5. — *Prices paid for Principal Items of Construction* — Concluded.

	Parkways.				Reservations.			
	Winthrop.	Mystic Valley.	Alewife Brook Purification.		Mystic River.			Charles River.
CONTRACT No.	119	124	125	126	114	122	124	120
Grading.								
Earth excavation (cubic yards),	$0 40	$0 35	$0 32½	$0 90	$0 90	-	$0 35	$0 25
Filling material furnished (cubic yards),	55	-	-	-	-	-	-	-
Rock excavation (cubic yards),	-	-	-	-	-	-	1 75	1 75
Masonry.								
Concrete 1 : 3 : 6 (cubic yards),	-	8 00	-	6 35	12 00	-	8 00	7 00
Concrete 1 : 2½ : 5 (cubic yards),	-	-	-	-	16 00	-	-	-
Brick catch-basins (each),	-	28 00	-	-	-	-	28 00	27 00
Surfacing.								
Broken stone and gravel roadway (square yards),	-	48	-	-	-	-	48	50
Loam (cubic yards),	-	30	-	-	-	-	30	25
Loam furnished (cubic yards),	-	90	-	-	-	-	90	90
Walk, cinders and stone dust (square yards),	-	30	-	-	-	-	30	18
Granolithic walk (square yards),	-	1 40	-	-	-	-	-	-
Lumber.								
Spruce lumber in place (1,000 feet B. M.),	-	30 00	-	-	-	-	30 00	-

FINANCIAL STATEMENT.

Dec. 1, 1908, to Dec. 1, 1909.

Metropolitan Parks Loan Fund,	$8,835,000 00
Receipts added to loan before June 1, 1901,	198,334 01
	$9,033,334 01

Expenditures.

Blue Hills Reservation: —				
Land,		$57 15		
Engineering, expenses,		52		
Land experts,		25 00		
			$82 67	
Middlesex Fells Reservation: —				
Engineering: —				
Pay rolls,	$31 62			
Expenses,	7 73			
		$39 35		
Landscape Architects, expenses,		2 50		
			41 85	
Revere Beach Reservation: —				
Engineering: —				
Pay rolls,	$109 47			
Expenses,	13 60			
		$123 07		
			123 07	
Beaver Brook Reservation: —				
Engineering, expenses,		$0 95		
			95	
Charles River Reservation: —				
Construction: —				
Contract, Martin & Condon,	$16,255 09			
Labor and materials,	477 42			
		$16,732 51		
Engineering: —				
Pay rolls,	$968 33			
Expenses,	150 55			
		1,118 88		
Legal,		75 00		
Advertising contracts,		129 74		
Miscellaneous,		52 76		
			18,108 89	
Neponset River Reservation: —				
Engineering: —				
Pay rolls,	$2 40			
Expenses,	10			
		$2 50		
			2 50	
Amounts carried forward,			$18,359 93	$9,033,334 01

Amounts brought forward,				$18,359 93	$9,033,334 01
Mystic River Reservation: —					
Construction: —					
Contracts: —					
Coffin Valve Co.,	$5,405 90				
Coleman Bros.,	42,531 33				
James H. Fannon,	11,502 21				
Gibby Foundry Co.,	9,837 99				
Axel E. F. Johanson,	862 84				
		$70,140 27			
Dredging,		10,947 52			
Labor and materials,		4,849 30			
			$85,937 09		
Engineering: —					
Pay rolls,		$3,753 31			
Expenses,		358 75			
			4,112 06		
Landscape Architects: —					
Services,		$5 00			
Expenses,		25			
			5 25		
Advertising contracts,			147 00		
Miscellaneous,			15 33		
				90,216 73	
Lynn Shore Reservation: —					
Land,			$175 00		
Engineering: —					
Pay rolls,		$26 90			
Expenses,		25			
			27 15		
Legal,			260 55		
				462 70	
Quincy Shore Reservation: —					
Land,			$10 00		
Engineering: —					
Pay rolls,		$52 60			
Expenses,		9 55			
			62 15		
				72 15	
Winthrop Shore Reservation: —					
Construction: —					
Contract, Hamlin & Ryan,			$2,125 32		
Engineering: —					
Pay rolls,		$383 19			
Expenses,		1 35			
			384 54		
Repairs to sea wall,			226 20		
				2,736 06	
Alewife Brook Purification: —					
Construction: —					
Contracts: —					
Bruno and Petitti,	$8,520 11				
Auguste Saucier,	20,690 12				
		$29,210 23			
Labor and materials,		1,287 06			
			$30,497 29		
Amounts carried forward,			$30,497 29	$111,847 57	$9,033,334 01

Amounts brought forward,		$30,497 29	$111,847 57	$9,033,334 01
Engineering: —				
Pay rolls,	$2,116 02			
Expenses,	374 60			
		2,490 62		
Landscape Architects, services,		50 00		
Advertising contracts,		102 23		
Miscellaneous,		38 44		
			33,178 58	
General expense: —				
Engineering: —				
Pay rolls,	$523 36			
Expenses,	254 53			
		$777 89		
Legal,		157 57		
Claims,		150 00		
			1,085 46	
			$146,111 61	
Amounts charged to Dec. 1, 1908,			8,732,134 12	
				8,878,245 73
Balance in hands of State Treasurer,				$155,088 28

Metropolitan Parks Loan Fund, Series II.

Metropolitan Parks Loan Fund, Series II,	$5,135,000 00
Receipts added to loan before June 1, 1901,	29,907 41
	$5,164,907 41

Expenditures.

Blue Hills Parkway: —				
Engineering: —				
Pay rolls,	$35 80			
Expenses,	20			
		$36 00		
			$36 00	
Middlesex Fells Parkway: —				
Land,		$625 24		
Construction: —				
Contract, Frank Williams & Co.,	$3,277 76			
Labor and materials,	1,893 59			
		5,171 35		
Engineering: —				
Pay rolls,	$254 96			
Expenses,	72 50			
		327 46		
Legal,		169 40		
Claims,		100 00		
Police station,		16,584 17		
Tar surfacing,		1,492 06		
			24,469 68	
Mystic Valley Parkway: —				
Construction: —				
Contract, James H. Fannon,	$18,140 24			
Dredging,	7,929 86			
Labor and materials,	3,123 87			
		$29,193 97		
Amounts carried forward,		$29,193 97	$24,505 68	$5,164,907 41

Amounts brought forward,		$29,193 97	$24,505 68	$5,164,907 41
Engineering: —				
Pay rolls,	$1,538 45			
Expenses,	143 63			
		1,682 08		
Landscape Architects, services,		15 00		
Architects,		15 00		
Aberjona Bridge,		41 80		
Miscellaneous,		16 61		
			30,964 46	
Revere Beach Parkway: —				
Engineering: —				
Pay rolls,	$74 70			
Expenses,	3 80			
		$78 50		
			78 50	
Neponset River Parkway: —				
Engineering: —				
Pay rolls,	$6 00			
Expenses,	40			
		$6 40		
			6 40	
Fresh Pond Parkway: —				
Engineering, expenses,		$0 40		
			40	
Furnace Brook Parkway: —				
Land,		$2,500 00		
Engineering: —				
Pay rolls,	$29 02			
Expenses,	4 60			
		33 62		
			2,533 62	
Nahant Beach Parkway: —				
Engineering, pay rolls,		$3 40		
			3 40	
Lynn Fells, Parkway: —				
Construction, labor and materials,		$3,371 85		
Engineering: —				
Pay rolls,	$40 28			
Expenses,	65 24			
		105 52		
Land experts,		25 00		
			3,502 37	
Winthrop Parkway: —				
Land,		$5,381 42		
Construction: —				
Contract, Richmond F. Hudson,	$19,780 05			
Labor and materials,	3,850 43			
		23,630 48		
Engineering: —				
Pay rolls,	$416 29			
Expenses,	104 63			
		520 92		
Legal,		70 70		
Claims,		25 00		
Land experts,		175 00		
Advertising contracts,		96 23		
Miscellaneous,		37 36		
			29,937 11	
Amounts carried forward,			$91,531 94	$5,164,907 41

Amounts brought forward,			$91,531 94	$5,164,907 41
Alewife Brook Parkway: —				
Land,		$60,371 12		
Engineering: —				
Pay rolls,	$353 01			
Expenses,	5 78			
		358 79		
Landscape architects, services,		8 50		
Legal,		1,536 85		
Claims,		100 00		
Advertising contracts,		97 58		
Miscellaneous,		16 59		
			62,489 43	
Charles River, Speedway: —				
Engineering: —				
Pay rolls,	$101 44			
Expenses,	3 70			
		$105 14		
			105 14	
Blue Hills Roads: —				
Engineering: —				
Pay rolls,	$44 80			
Expenses,	1 00			
		$45 80		
			45 80	
Middlesex Fells Roads: —				
Engineering: —				
Pay rolls,	$68 26			
Expenses,	55			
		$68 81		
			68 81	
General expense: —				
Engineering: —				
Pay rolls,	$429 78			
Expenses,	348 33			
		$778 11		
Legal,		154 54		
Claims,		150 00		
			1,082 65	
			$155,323 77	
Amounts charged to Dec. 1, 1908,			4,875,193 95	
				5,030,517 72
Balance in hands of State Treasurer,				$134,389 69

Metropolitan Parks System Maintenance.

Appropriation Dec. 1, 1908, to Dec. 1, 1909,			$369,584 96

Expenditures.

General expense: —			
Police: —			
Pay rolls,	$69,073 09		
Equipment,	9,039 28		
		$78,112 37	
Amounts carried forward,		$78,112 37	$369,584 96

Amounts brought forward,		$78,112 37		$369.584 96
Salaries: —				
Commissioners,	$3,450 00			
General office,	6,243 00			
Law department,	2,140 00			
Engineering department,	6,740 00			
		18,573 00		
Mateer pension,		225 00		
Engineering supplies,		260 00		
Rent, lighting and care of offices,		2,964 38		
Telephones,		843 95		
Annual report, one-half,		634 05		
Stationery and printing,		573 20		
Office repairs and alterations,		327 94		
Postage, etc.,		302 35		
Traveling,		276 78		
Extra clerical assistance,		196 26		
Filing cabinets, cards, etc.,		136 39		
Maps and books,		112 98		
Automobile and motorcycle fees,		89 00		
Recording papers,		70 55		
Premiums on bonds,		50 00		
Moving furniture,		49 00		
Photographs and slides,		27 23		
Spring water,		21 20		
Towel supply,		19 38		
Wardrobe,		18 00		
Electrical fixtures,		15 25		
Analysis of lead arsenate,		15 00		
Numbering machine,		14 00		
Ice,		13 50		
Expense, 1915 Exhibit,		9 79		
Lettering books,		9 08		
Office supplies,		8 25		
Typewriter supplies,		6 15		
Book shelves,		5 75		
Door check,		5 25		
Desk lamp,		5 00		
Packing cases,		4 14		
Rubber stamps,		3 35		
Window shades,		2 70		
Fire extinguishers,		2 50		
Soap,		1 44		
Typewriter repairs,		1 00		
Express,		70		
			$104,005 86	
Blue Hills Reservation: —				
Labor,	$19,316 25			
Teaming,	1,066 89			
Keep of horses,	4,526 97			
		$24,910 11		
Labor and supplies, gypsy and brown-tail moth work,		24,510 12		
Town of Milton, water main,		7,503 54		
General supplies,		2,007 93		
Sanitary fittings,		706 13		
Pine seedlings,		449 05		
Telephones,		348 47		
Telegraph wire,		195 12		
Lighting offices,		163 48		
Row boats,		157 24		
Amounts carried forward,		$60,951 19	$104,005 86	$369,584 96

Amounts brought forward,		$60,951 19	$104,005 86	$369,584 96
Repairs,		123 46		
Water rates,		121 39		
Furnace,		105 30		
Stationery and printing,		95 53		
Corrugated matting,		90 00		
Boiler,		80 00		
Laundry,		60 75		
Express,		60 23		
Report on Section III,		30 00		
Peppermint testing machine,		28 00		
Freight,		21 90		
Installing lights in storage shed,		12 50		
Chair,		6 15		
Canvas suits,		4 15		
Traveling,		2 65		
Miscellaneous,		30		
			61,793 50	
Middlesex Fells Reservation: —				
Labor,	$13,652 58			
Teaming,	1,836 63			
Keep of horses,	4,002 74			
		$19,491 95		
Labor and supplies, gypsy and brown-tail moth work,		64,992 28		
Resurfacing roads,		9,999 80		
Street watering or its equivalent,		2,499 85		
General supplies,		2,423 04		
Street lighting,		848 18		
Telephones,		323 09		
Lighting offices,		310 47		
Express,		144 58		
Stationery and printing,		94 75		
Traveling,		64 64		
Repairs,		33 45		
Water rates,		32 82		
Desk lamps,		27 00		
Sand,		22 50		
Couch,		10 00		
Chair,		7 50		
Photographs,		2 00		
Post-office box,		80		
Laundry,		36		
			101,329 06	
Revere Beach Reservation: —				
Labor,	$11,989 62			
Teaming,	15 00			
Keep of horses,	1,944 33			
		$13,948 95		
Street lighting,		4,681 50		
Addition to police station,		3,716 70		
Street watering or its equivalent,		3,005 71		
Incinerator,		2,475 42		
General supplies,		1,636 56		
Renewing plumbing in sanitary,		765 00		
Telephones,		356 32		
Water rates,		161 76		
Traveling,		155 66		
Boiler alterations,		140 00		
Express,		125 17		
Stationery and printing,		118 12		
Amounts carried forward,		$31,286 87	$267,128 42	$369,584 96

Amounts brought forward,		$31,286 87	$267,128 42	$369,584 96
Lighting offices,		93 10		
Repairs,		53 77		
Typewriter,		47 75		
Crushed stone,		29 53		
Forge,		24 00		
Laundry,		13 26		
Subscription to "Detective,"		1 00		
			31,549 28	
Stony Brook Reservation: —				
Labor,	$2,759 52			
Teaming,	562 50			
Keep of horses,	770 38			
		$4,092 40		
Labor and supplies, gypsy and brown-tail moth work,		3,656 50		
Street watering or its equivalent,		761 07		
General supplies,		165 91		
Telephones,		70 64		
Water rates,		13 00		
Repairs,		8 35		
			8,767 87	
Beaver Brook Reservation: —				
Labor,	$1,853 77			
Keep of horses,	166 42			
		$2,020 19		
Sanitary and shelter buildings,		4,995 10		
Labor and supplies, gypsy and brown-tail moth work,		363 12		
General supplies,		181 84		
Wall,		80 00		
Water rates,		52 99		
Telephones,		46 67		
Repairs,		30 45		
Traveling,		6 60		
Sewer rates,		4 50		
Express,		4 30		
Stationery and printing,		2 59		
Cleansing blanket,		1 50		
			7,789 85	
Charles River Reservation: —				
Riverside Section: —				
Labor,	$3,432 58			
Teaming,	70 26			
Keep of horses,	744 38			
		$4,247 22		
Labor and supplies, gypsy and brown-tail moth work,		4,911 50		
General supplies,		1,782 29		
Lighting offices,		213 48		
Telephones,		110 41		
Water rates,		83 03		
Stationery and printing,		68 29		
Repairs,		49 71		
Traveling,		49 19		
Physician,		26 50		
Street lighting,		25 00		
Express,		19 30		
Rugs,		16 00		
Canvas suits,		12 30		
			11,614 22	
Amounts carried forward,			$326,849 64	$369,584 96

Amounts brought forward,			$326,849 64	$369,584 96
Speedway Section: —				
Labor,	$8,484 00			
Teaming,	1,835 00			
Keep of horses,	3,016 04			
		$13,335 04		
Street watering or its equivalent,		2,834 80		
General supplies,		1,962 64		
Street lighting,		1,680 92		
Labor and supplies, gypsy and brown-tail moth work,		1,471 97		
Loam,		525 00		
Pipe and post hydrant,		185 26		
Floats,		156 00		
Telephones,		134 76		
Dressing,		120 00		
Lighting offices,		92 91		
Typewriter and table,		92 25		
Water rates,		86 22		
Stationery and printing,		66 85		
Traveling,		64 40		
Laundry,		61 79		
Repairs,		56 13		
Flags,		45 45		
Crushed stone,		26 07		
Installing bell,		25 00		
Express,		20 20		
			23,043 66	
Neponset River Reservation: —				
Labor,		$99 75		
Labor and supplies, gypsy and brown-tail moth work,		926 50		
Telephones,		33 00		
Water rates,		7 00		
			1,066 25	
Lynn Shore Reservation: —				
Labor,	$3,029 59			
Teaming,	38 13			
		$3,067 72		
Street lighting,		2,463 96		
Street watering or its equivalent,		1,203 53		
General supplies,		323 73		
Shrubs,		44 10		
Water rates,		16 00		
Sods,		12 50		
Stationery and printing,		6 53		
			7,138 07	
Quincy Shore Reservation: —				
Labor,	$2,940 50			
Teaming,	306 89			
		$3,247 39		
Street lighting,		771 40		
Conduit for police signal system,		710 70		
Cable for police signal system,		248 16		
General supplies,		332 38		
Labor and supplies, gypsy and brown-tail moth work,		248 75		
Telephones,		85 71		
Street watering or its equivalent,		42 88		
Miscellaneous,		1 00		
			5,688 37	
Amounts carried forward,			$363,785 99	$369,584 96

Amounts brought forward,			$363,785 99	$369,584 96
Winthrop Shore Reservation: —				
Labor,	$1,301 84			
Teaming,	39 25			
		$1,341 09		
General supplies,		648 41		
Street lighting,		615 96		
Freight,		22 33		
Water rates,		7 20		
Stationery and printing,		4 27		
Express,		39		
			2,639 65	
				366,425 64
Balance,				$3,159 32

Band Concerts.

Appropriation,			$25,000 00

Expenditures.

Blue Hills Reservation: —			
Band,	$914 96		
		$914 96	
Middlesex Fells Division: —			
Band,	$2,385 52		
Extra police,	50 00		
Lumber,	40 17		
Setting up and storing band stand and chairs,	40 00		
Lighting band stand,	24 35		
Repairing band stand,	15 73		
Wiring band stand,	15 00		
		2,570 77	
Revere Beach Reservation: —			
Band,	$6,216 00		
Shades,	88 50		
Lighting band stand,	64 80		
		6,369 30	
Beaver Brook Reservation: —			
Band,	$1,405 84		
		1,405 84	
Charles River Reservation, Riverside Division: —			
Band,	$1,723 68		
		1,723 68	
Charles River Reservation, Speedway Division: —			
Band,	$2,293 75		
Extra police,	270 00		
Ice,	1 40		
		2,565 15	
Nahant Beach Parkway: —			
Band,	$1,843 00		
Extra police,	33 00		
		1,876 00	
Nantasket Beach Reservation: —			
Band,	$6,720 00		
Express on music,	9 55		
Cardboard,	4 45		
		6,734 00	
General expense: —			
Advertising contracts,	$406 98		
		406 98	
			24,566 68
Balance,			$433 32

Metropolitan Parks Boulevard Maintenance.

Appropriation Dec. 1, 1908, to Dec. 1, 1909, ... $174,153 16

Expenditures.

General expense: —			
Police: —			
Pay rolls,	$25,868 95		
Equipment,	8,911 46		
		$34,780 41	
Salaries: —			
Commissioners,	$3,450 00		
General office,	6,361 80		
Law department,	2,140 00		
Engineering department,	6,740 00		
		18,691 80	
Engineering supplies,		259 53	
Rent, lighting and care of offices,		2,957 92	
Automobile, engineering department,		1,087 75	
Telephones,		842 33	
Annual report, one-half,		634 05	
Stationery and printing,		502 01	
Maps and books,		331 27	
Postage, etc.,		299 85	
Traveling,		189 72	
Advertising rules,		100 74	
Automobile and motorcycle fees,		82 50	
Office repairs and alterations,		70 05	
Recording papers,		56 55	
Typewriter,		55 05	
Filing cabinets, cards, etc.,		29 89	
Photographs and slides,		27 30	
Storing awnings,		24 60	
Expense, 1915 Exhibit,		24 10	
Spring water,		21 75	
Towel supply,		20 49	
Cleaning carpets, etc.,		19 50	
Office supplies,		16 49	
Typewriter repairs,		15 75	
Reupholstering chairs,		15 50	
Express,		12 50	
Typewriter supplies,		10 65	
Rubber stamps,		6 95	
Screens,		6 89	
Soap,		6 51	
Rubber coats,		5 80	
Ice,		4 50	
Lettering books,		4 05	
Copy cloths,		3 75	
			$61,218 50
Blue Hills Parkway: —			
Labor,	$1,872 00		
Teaming,	553 50		
Keep of horses,	2,650 00		
		$5,075 50	
Street watering or its equivalent,		2,855 72	
Street lighting,		2,550 00	
Labor and supplies, gypsy and brown-tail moth work,		450 00	
Wire lathing and plastering station,		200 00	
Amounts carried forward,		$11,131 22	$61,218 50

$174,153 16

Amounts brought forward,		$11,131 22	$61,218 50	$174,153 16
General supplies,		184 24		
Gasoline tank outfit,		118 00		
Water rates,		15 05		
Lighting offices,		13 52		
			11,462 03	
Middlesex Fells Parkway: —				
Labor,	$5,113 01			
Teaming,	1,984 30			
Keep of horses,	902 51			
		$7,999 82		
Street watering or its equivalent,		5,999 91		
Street lighting,		5,889 85		
Police signal system,		5,000 00		
Labor and supplies, gypsy and brown-tail moth work,		1,499 96		
General supplies,		690 50		
Loam,		131 60		
Telephones,		85 85		
Edgestone,		52 00		
Lighting offices,		13 81		
Chairs,		10 80		
Water rates,		9 09		
Stationery and printing,		4 01		
			27,387 20	
Mystic Valley Parkway: —				
Labor,	$5,593 10			
Teaming,	2,582 71			
Keep of horses,	113 05			
		$8,288 86		
Labor and supplies, gypsy and brown-tail moth work,		2,699 93		
Street lighting,		2,670 00		
Street watering or its equivalent,		2,499 89		
Crushed stone and gravel,		768 56		
Loam,		465 00		
Cradock Bridge,		361 10		
General supplies,		257 12		
Telephones,		145 79		
Water rates,		98 07		
Power for sluice gates,		62 50		
Row boat,		40 28		
Chairs,		10 80		
Stationery and printing,		9 65		
			18,377 55	
Revere Beach Parkway: —				
Labor,	$9,056 63			
Teaming,	63 88			
Keep of horses,	3,237 30			
		$12,357 81		
Street watering or its equivalent,		4,977 80		
Resurfacing roadways,		4,870 48		
Street lighting,		4,501 77		
Addition to police station,		3,170 50		
General supplies,		1,509 55		
Labor and supplies, gypsy and brown-tail moth work,		393 98		
Trees,		153 05		
Telephones,		100 50		
Stationery and printing,		22 03		
Traveling,		13 80		
Amounts carried forward,		$32,071 27	$118,445 28	$174,153 16

Amounts brought forward,		$32,071 27	$118,445 28	$174,153 16
Express,		12 20		
Cinders,		11 25		
Water rates,		5 00		
			32,099 72	
Neponset River Parkway: —				
Labor,	$624 00			
Teaming,	10 00			
		$634 00		
Street watering or its equivalent,		304 95		
Labor and supplies, gypsy and brown-tail moth work,		105 00		
General supplies,		3 42		
			1,047 37	
Nahant Beach Parkway: —				
Labor,	$3,076 75			
Teaming,	123 31			
Keep of horses,	238 57			
		$3,438 63		
Street watering or its equivalent,		741 97		
Street lighting,		605 31		
General supplies,		238 49		
Loam,		143 75		
Curtains,		104 50		
Stationery and printing,		10 08		
			5,282 73	
Fresh Pond Parkway: —				
Labor,	$820 00			
Teaming,	80 00			
		$900 00		
Street watering or its equivalent,		516 00		
Street lighting,		450 00		
Labor and supplies, gypsy and brown-tail moth work,		300 00		
Crushed stone and gravel,		151 50		
General supplies,		5 10		
			2,322 60	
Furnace Brook Parkway: —				
Labor,	$1,315 00			
Teaming,	63 50			
		$1,378 50		
Street lighting,		1,288 56		
Cable for police signal system,		323 40		
Labor and supplies, gypsy and brown-tail moth work,		315 25		
Street watering or its equivalent,		245 92		
General supplies,		151 17		
Lighting offices,		13 14		
			3,715 94	
Lynnway: —				
Labor,		$5,395 77		
Street watering or its equivalent,		1,058 14		
Street lighting,		840 00		
General supplies,		131 74		
Trees,		32 40		
Stationery and printing,		5 50		
			7,463 55	
Lynn Fells Parkway: —				
Labor,	$741 42			
Teaming,	8 50			
		$749 92		
Amounts carried forward,		$749 92	$70,377 19	$174,153 16

Amounts brought forward,	$749 92	$70,377 19	$174,153 16
Street watering or its equivalent,	799 91		
Street lighting,	540 00		
General supplies,	149 98		
Labor and supplies, gypsy and brown-tail moth work,	50 00		
		2,289 81	
			172,667 00
Balance,			$1,486 16

Nantasket Beach Maintenance.

Appropriation Dec. 1, 1908, to Dec. 1, 1909,			$22,500 00

Expenditures.

Labor,	$4,823 45		
Teaming,	12 50		
Keep of horses,	401 04		
		$5,236 99	
Police: —			
Pay rolls,	$11,229 06		
Equipment,	304 77		
		11,533 83	
General supplies,		1,594 21	
Street lighting,		1,560 06	
Street watering or its equivalent,		754 58	
Roofing,		650 00	
Rent, superintendent's house,		399 96	
Water rates,		320 50	
Painting buildings,		149 51	
Telephones,		112 01	
Flags,		48 15	
Express,		46 95	
Freight,		29 24	
Ozone generator,		20 00	
Repairs,		14 29	
Water cooler,		8 25	
Stationery and printing,		4 91	
			22,483 44
Balance,			$16 56

Wellington Bridge Maintenance.

Appropriation Dec. 1, 1908, to Dec. 1, 1909,			$6,752 00

Expenditures.

Labor,	$3,903 70		
Teaming,	897 95		
Keep of horses,	50 35		
		$4,852 00	
Street lighting,		900 00	
Power for draw,		250 00	
Street watering or its equivalent,		249 99	
Loam,		145 80	
Shrubs,		136 08	
General supplies,		125 95	
Telephones,		72 73	
Water rates,		11 76	
Sand,		6 00	
			6,750 31
Balance,			$1 69

Metropolitan Parks Expense Fund.

Balance Dec. 1, 1908,			$88,499 99
Receipts, Dec. 1, 1908, to Dec. 1, 1909,			88,375 37
			$176,875 36

Expenditures.

General expense: —			
Labels,		$4 75	
Photographs,		4 00	
			$8 75
Police: —			
Motorcycle parts and repairs,		$2,501 05	
Motorcycles,		1,441 00	
Horses,		600 00	
Patrol wagon,		525 00	
Advertising rules,		193 20	
Rent and care of armory and shooting gallery,		155 06	
Double shunts for police boxes,		140 00	
Lectures and examinations,		111 70	
Naphtha,		102 45	
Ambulance and equipment,		78 25	
Reports of hearings (Bacon and Burpee),		73 00	
Stretchers,		59 00	
Miscellaneous,		21 75	
			6,001 46
Engineering: —			
Telephones,		$16 38	
			16 38
Blue Hills Reservation: —			
Stable, Randolph Avenue,		$6,054 63	
Repairs to buildings,		370 98	
Architects,		300 00	
Moving buildings,		65 00	
Inspection of buildings,		25 00	
Water rates,		24 45	
Installing lights, sergeant's stable,		11 00	
			6,851 06
Middlesex Fells Reservation: —			
Landscape Architects: —			
Services,	$28 66		
Expenses,	3 48		
		$32 14	
Rent, superintendent's house,		432 00	
Park cart,		135 63	
Architects,		100 00	
Automobile seats,		50 00	
Cleaning cesspools, etc.,		30 00	
Inspection of buildings,		25 00	
Repairs to buildings,		20 00	
Water rates,		15 00	
Opossum,		10 00	
			849 77
Revere Beach Reservation: —			
Bath-house: —			
Pay rolls,	$17,794 96		
Bathing suits,	3,303 04		
Lighting,	1,881 06		
Coal,	950 00		
Engine room,	857 78		
Amounts carried forward,	$24,786 84		$13,727 42 $176,875 36

Amounts brought forward,	$24,786 84	$13,727 42	$176,875 36
Bath-house — *Con.*			
Paint,	857 31		
Towels,	834 17		
Stockings,	623 35		
Repairs,	484 06		
Water rates,	359 72		
Flag staffs,	330 00		
Lumber,	276 68		
Hardware,	250 46		
Boiler repairs,	182 67		
Hose,	180 25		
Corrugated matting,	166 91		
Toilet paper,	164 23		
Coal delivery,	161 22		
Tickets,	149 95		
Bathing caps,	120 00		
Key bands,	116 69		
Flags,	115 75		
Ice,	112 88		
Soap, etc.,	110 65		
Medicine and attendance,	75 39		
Employees' caps and badges,	57 12		
Stationery,	45 27		
Machinists' tools,	42 70		
Iron chain,	41 40		
Oil,	41 08		
Telephones,	37 52		
Hose racks,	33 60		
Mirrors and frames,	31 38		
Polish,	30 85		
Channel iron,	30 00		
Brooms,	28 80		
Acids,	27 65		
Disinfectant,	24 00		
Hand cart,	23 44		
Findings,	20 24		
Electrical fixtures,	17 00		
Hose fittings,	15 20		
Ash barrels,	15 00		
Castors,	14 55		
Blankets,	12 75		
Water cooler,	12 10		
Stamp ink,	12 00		
Fuses,	11 89		
Shower heads and hooks,	10 95		
Sockets,	10 41		
Doors,	10 40		
Plumbers friends' cleaners,	10 35		
Clock dials,	10 00		
Service pipes to drinking fountain,	10 00		
Spring water,	9 20		
Fire pails,	8 49		
Brushes and combs,	7 90		
Acme sprayers,	7 25		
Feather dusters,	7 15		
Uniforms,	6 63		
Oil tank,	6 00		
Stools,	6 00		
Brushes,	5 36		
Amounts carried forward,	$31,210 81	$13,727 42	$176,875 36

Amounts brought forward,	$31,210 81		$13,727 42	$176,875 36
Bath-house — *Con.*				
Sponges,	5 25			
Crash,	4 75			
Clock springs,	4 55			
Sprinklers,	4 50			
Twine,	4 50			
Cash box,	3 50			
Shovels,	3 29			
Matches,	3 25			
Mosquito netting,	2 65			
Wringer,	2 50			
Mop handles,	2 30			
Key blanks,	2 25			
Felt,	1 80			
Lantern,	1 80			
Step ladder,	1 80			
Sand paper,	1 76			
Batteries,	1 26			
Starch,	1 20			
Cords and tassels,	1 12			
Miscellaneous,	5 52			
		$31,270 36		
Engineering, expenses,		5 00		
Granolithic walks,		3,592 81		
Planting,		177 90		
Inspection of buildings,		25 00		
			35,071 07	
Stony Brook Reservation: —				
Water rates,		$64 00		
Repairs to buildings,		14 25		
			78 25	
Beaver Brook Reservation: —				
Inspection of buildings,		$5 48		
			5 48	
Charles River Reservation: —				
Riverside Section: —				
Repairs to buildings,		$372 71		
Inspection of buildings,		20 00		
Water rates,		11 52		
			404 23	
Speedway Section: —				
Box drains,		$198 87		
Inspection of buildings,		20 00		
			218 87	
Mystic River Reservation: —				
Repairs to buildings,		$43 00		
Water rates,		31 00		
			74 00	
Lynn Shore Reservation: —				
Repairs to sea wall,		$4,568 64		
			4,568 64	
Middlesex Fells Parkway: —				
Landscape Architects, services,		$60 00		
Teaming loam,		735 51		
Labor and materials,		600 16		
Sanitary buildings,		160 00		
Filling at Brooks Road Bridge,		142 00		
Amounts carried forward,		$1,697 67	$54,147 96	$176,875 36

Amounts brought forward,		$1,697 67	$54,147 96	$176,875 36
Refectory,		130 00		
Pruning,		30 75		
			1,858 42	
Mystic Valley Parkway: —				
Payment on account of contract, James H. Fannon,		$3,971 83		
Repairs to buildings,		620 18		
Water rates,		11 00		
			4,603 01	
Neponset River Parkway: —				
Grading around Hemenway Pond,		$1,500 00		
Water rates,		6 00		
			1,506 00	
Nahant Beach Parkway: —				
Bath-house: —				
Pay rolls,	$3,332 00			
Bathing suits,	858 86			
Lighting,	265 90			
Coal,	204 00			
Towels,	200 00			
Stockings,	155 35			
Telephones,	68 57			
Tickets,	42 50			
Bathing caps,	41 67			
Key bands,	27 14			
Doors and screens,	27 06			
Cleaning cesspool, etc.,	26 00			
Lumber,	24 91			
Medicine and attendance,	24 57			
Repairs,	24 00			
Water rates,	23 78			
Flags,	20 15			
Uniform (manager),	18 88			
Sheets,	13 45			
Oil,	8 25			
Electrical fixtures,	7 68			
Brushes,	7 57			
Sockets,	7 41			
Polish,	5 60			
Stationery,	5 15			
Crash,	4 75			
Ice,	4 70			
Express,	4 50			
Hardware,	4 24			
Clock dials,	4 00			
Postage stamps,	4 00			
Step-ladders,	3 35			
Findings,	1 75			
Fuses,	1 59			
Shovels,	1 06			
Scissors,	1 03			
Miscellaneous,	2 98			
		$5,478 40		
Planting,		168 50		
			5,646 90	
Fresh Pond Parkway: —				
Entrance to John C. Gray's estate,		$24 50		
			24 50	
Amounts carried forward,			$67,786 79	$176,875 36

Amounts brought forward,			$67,786 79	$176,875 36
Winthrop Parkway: —				
Advertising,		$5 50		
			5 50	
Nantasket Beach Reservation: —				
Bath-house: —				
Pay rolls,	$5,459 32			
Coal,	1,140 00			
Water rates,	473 71			
Towels,	336 00			
Bathing suits,	321 23			
Repairs,	215 59			
Engine room,	177 33			
Lighting,	102 40			
Stationery,	92 42			
Ice,	76 35			
Hose,	43 92			
Laundry,	39 80			
Cleaning cesspools,	35 00			
Paint,	33 43			
Soap, etc.,	30 51			
Telephones,	27 00			
Tickets,	25 90			
Medicine and attendance,	25 62			
Disinfectant,	20 10			
Crash,	19 00			
Tanks,	18 50			
Findings,	15 34			
Key bands,	13 78			
Bathing caps,	12 00			
Brushes,	9 82			
Brooms,	7 85			
Uniforms,	6 63			
Polish,	4 85			
Lumber,	4 16			
Postage stamps,	4 00			
Shovels,	2 09			
Sand glass,	1 50			
Hardware,	1 03			
Miscellaneous,	45			
		$8,796 63		
Engineering, expenses,		35 53		
Repairs and alterations in buildings,		15,113 51		
Drain pipe rental,		25 52		
Inspection of buildings,		25 00		
Gasoline,		2 95		
			23,999 14	
				91,791 43
Balance,				$85,083 93

Metropolitan Parks Trust Fund.

Balance, Dec. 1, 1909,	$1,048 43